FASSATHERM®
EXTERNAL THERMAL INSULATION COMPOSITE SYSTEM
Well-being all around you
Backed by an extensive range of systems, exceptional organisation and professionalism, the Fassa Bortolo Integrated System focuses resources on one objective. One partner is therefore able to meet all customer needs, guaranteeing global service that spans supply, support, training and assistance.

**Fassa Bortolo Integrated System**

15 consistently interrelated, integrated systems
3 MISSIONS:
Diagnosis, Technology and Aesthetics

Choosing the best solution for a building restoration project is always the result of proper DIAGNOSIS, a fundamental step in ensuring overall project quality. This is carried out by Fassa Bortolo specialists, who use their significant experience to ensure excellence throughout the services offered.

Diagnosis is critical in defining which type of cycle is best suited to solving the project’s requirements and identifying the products and processes that, based on significant knowledge of site technical issues, can guarantee the expected optimum result. When it comes to restoration or reconstruction, the main goals are to improve functionality, aesthetics and energy performance. These can be obtained through the FASSATHERM® External Thermal Insulation Composite System and the performance in terms of TECHNOLOGY of the products and processes, whose absolute quality guarantees protection of the investment over time.

For many years, Fassa Bortolo has been continuously investing in the research and development of its solutions, based on climate changes and the effects that time has on construction pursuing the principle of qualitative excellence that the company has always stood out for.

AESTHETICS are the result of work carried out to “perfection”, as a guarantee in the Fassa Bortolo tradition.
WHY AN EXTERNAL THERMAL INSULATION COMPOSITE SYSTEM?

What is the purpose of an “External Thermal Insulation Composite System”?

The main advantages of the External Thermal Insulation Composite System are:

- Continuous thermal insulation of external vertical walls made using different materials;
- No thermal bridges on the façade;
- No risk of condensation at the thermal bridges;
- Higher internal surface temperature of perimeter walls;
- Energy benefits in both winter and summer;
- Improved indoor comfort;
- Greater energy performance of the envelope;
- Cost savings for space heating and/or cooling;
- Less polluting emissions;
- Increased property value.

FASSATHERM®

One solution with many advantages

Fassatherm® is the complete External Thermal Insulation Composite System (ETICS). Different solutions to meet multiple performance needs.

Comfort

The FASSATHERM® ETICS protects the wall against temperature variations, bringing energy benefits in both winter and summer and ensuring improved indoor comfort.

Protection and durability

Temperature variations lead to the formation of tensions on the exterior surface of structures. For this reason, cracks and fissures may occur on the façade, allowing infiltration of water and causing breakages to the finishes and plaster.

The FASSATHERM® External Thermal Insulation Composite System prevents these phenomena by protecting the building and extending its lifespan.

For both new and existing buildings

For renovations, the FASSATHERM® ETICS System has significant advantages in terms of energy, offering total protection of the building’s facades, and solving the problem of cracks and fissures on the surfaces. This is because FASSATHERM® ETICS Thermal Insulation and finishes are applied as one system.
**Efficiency and savings**

Good insulation of the exterior envelope of buildings significantly reduces heat loss to the outside, thus ensuring considerable cost savings due to a reduction in heating and cooling bills. Furthermore, application of thermal insulation on the outside of buildings has the added advantage, in winter, of being able to better exploit the thermal inertia of the masonry: heat is accumulated by the walls when the heating system is operating and then gradually released when the system is off, making the indoor temperature more pleasant at times when no heat is being generated.

**Environmental protection**

The FASSATHERM® External Thermal Insulation Composite System is also an environmentally-friendly choice. By limiting energy consumption, it reduces carbon dioxide (CO₂) emissions and thus helps protect the environment.

**Easy application**

Fassa Bortolo now also supplies some of its products in practical silos: products that are ready-to-use, delivered directly to the site on special Fassa Bortolo vehicles. Less time, less space, zero waste disposal problems.
ACOUSTIC INSULATION of the External Thermal Insulation Composite System

Application of the External Thermal Insulation Composite System (ETICS) involves one layer of insulation and one finish layer. From an acoustic insulation point of view, the external thermal insulation composite system provides a two-mass system, consisting of the masonry and the layer of coating (reinforced skim coat and finish), mechanically coupled by a spring represented by the insulating layer.

A mass-spring-mass system is thus created, the acoustic performance of which may vary depending on the two masses and the dynamic rigidity of the insulation:

- The masonry substrate is assumed to be rigid and continuous, and to have a much higher mass than the other two layers.
- The insulation that acts as the spring represents the material that needs to dampen the acoustic shock wave.
- The exterior plaster represents the rigid element that distributes the mechanical energy that the sound wave exerts on the impact surface.

It should be specified that in most cases, on insulated façades the glazing and discontinuities present (such as ventilation vents, roller shutter boxes, etc.) affect overall acoustic insulation capacity. A properly applied external thermal insulation composite system improves the performance of opaque shells with poor or insufficient acoustic insulation properties.

MECHANICAL STABILITY

The FASSATHERM® External Thermal Insulation Composite System is suitable for both new buildings and for renovating existing buildings to improve energy performance. To achieve the best results, correct design and application of the System is essential.

To obtain the best results in terms of mechanical stability of the FASSATHERM® External Thermal Insulation Composite System, the substrate must be prepared to ensure durable adhesion between insulation panel and wall by bonding and mechanical fixing.

Verify substrate flatness

When applying a FASSATHERM® External Thermal Insulation Composite System, based on our experience and international standards the following tolerances are recommended for the substrate (Table A) and the finished ETICS (Table B).

**TABLE A / substrate flatness tolerance (ONORM DIN 18202)**

<table>
<thead>
<tr>
<th>Reference</th>
<th>Tolerances in mm referring to the substrate in meters</th>
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<tr>
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<td>(m)</td>
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<table>
<thead>
<tr>
<th>Reference</th>
<th>Tolerances in mm referenced to the finished ETICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished ETICS</td>
<td>(m)</td>
</tr>
<tr>
<td></td>
<td>(mm)</td>
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</table>
BRITISH BOARD OF AGRÉMENT (BBA)

The British Board of Agrément (BBA) is one of the UK’s largest notified bodies, offering approval, certification and testing services for system manufacturers in the construction industry. The BBA has tested the FASSATHERM External Thermal Insulation Composite System, issuing a certification that attests its performance and suitability for the intended use of the System. BBA certification was a necessary requirement to extend the offering of the FASSATHERM External Thermal Insulation Composite System, already with European Technical Approval (ETA), specifically for the British market.

Our Agrément Certificate Product Sheet

• Fassatherm Bonded EPS External Wall Insulation Systems (comprising white or grey EPS insulation boards, adhesively fixed with supplementary mechanical fixings, with a reinforced basecoat and render finishes)
• Fassatherm Mechanically Fixed EPS External Wall Insulation Systems (comprising white or grey expanded polystyrene—EPS—insulation boards, mechanically-fixed with supplementary adhesive, with a reinforced basecoat and render finishes)
• Fassatherm Mechanically Fixed MW External Wall Insulation System (comprising mineral wool insulation slabs, mechanically-fixed with supplementary adhesive, with a reinforced basecoat and render finishes).

They are suitable for use on the outside of external walls in new and existing domestic and non-domestic buildings.

CERTIFICATIONS INCLUDE:

• Factors relating to compliance with Building Regulations where applicable;
• Factors relating to additional non-regulatory information where applicable;
• Independently verified technical specification;
• Assessment criteria and technical investigations;
• Design considerations;
• Installation guidance;
• Regular surveillance of production;
• Formal three-yearly review.
FASSATHERM® WOOD:  
The FASSATHERM® External Thermal Insulation Composite System with ETA for timber frame structures

To date, ETA certificates issued to the FASSATHERM® External Thermal Insulation Composite System are based on European guideline ETAG 004, which is equivalent to a product standard for the tested system. As currently reported on the ETA certificates, the ETAG 004 guideline specifies that the system is designed to be installed on traditional substrates such as masonry (brick, concrete, stone, etc.), cast concrete or precast panels.

Thanks to a collaboration with Fassa at the forefront, the new EAD guideline has been defined for External Thermal Insulation Composite System on buildings with timber frames. This new guideline defines the initial type test methods for the components, as well as defining production control.

Fassa now presents the first ETA 16/0932 certified external thermal insulation composite system for structures with timber frames, FASSATHERM® WOOD.

The FASSATHERM® WOOD System has been tested with EPS 100 and MINERAL WOOL panels, mechanically fixed using special anchors and additional adhesive. This new ETA certification applies to several types of timber frame structures: wood panels, chipboard and cement panels, fibrous cement panels, chipboard and gypsum panels, plasterboard, gypsum fibreboard and similar products.

The certification also includes all of the necessary accessories for correct installation.

FASSATHERM® WOOD contributes to improving the energy performance of the building envelope, providing better protection against the elements. The requirements of the new ETA are based on an assumed lifespan of at least 25 years.
**Cycle with EPS panel**

1. **A 96** adhesive (if needed)
2. **EPS 100** insulation panel (60-300 mm thick)
3. **Fassa Wood Fix** mechanical fixing
4. **A 96** skim coat
5. **FASSANET 160** reinforcing mesh
6. **FX 526** acrylic siloxane primer
7. **RX 561** acrylic siloxane coating

**Cycle with MINERAL WOOL panel**

1. **A 96** adhesive (if needed)
2. **MINERAL WOOL** insulation panel (100-200 mm thick)
3. **Fassa Wood Fix** mechanical fixing
4. **A 96** skim coat
5. **FASSANET 160** reinforcing mesh
6. **FS 412** silicone resin primer
7. **RSR 421** silicone resin coating
Simplicity and completeness are the focal points of the FASSATHERM® External Thermal Insulation Composite System. This guide is intended to be an additional tool for professional installers, providing all the useful information needed to correctly use the various systems. For each system, we offer suggestions on the application cycles and corresponding products, plus details on the main features and technical characteristics of each product. The product descriptions are complete with symbols that denote the certification standards.

**French Label - Etiquetage sanitaire**
Classification and labelling system applied to emissions of Volatile Organic Compounds (VOCs) from construction and decoration products and indoor finishes, required for the French market.

**European Technical Approval (ETA)**
The FASSATHERM® External Thermal Insulation Composite System has achieved technical approval for thermal insulation applications, based on compliance with all the requirements of the ETAG 004 guidelines. The quality and safety of every component in the System is decisive in guaranteeing optimum efficiency and durability. From insulation to adhesive/skim coats, from anchors to reinforcing, all the elements in the FASSATHERM® External Thermal Insulation Composite System undergo the strictest possible tests.

**Construction Products Regulation CPR 305/2011, CE and DoP marking**
On 1 July 2013, European Regulation 305/2011 on construction products entered into force, replacing the previous Directive 89/106. In light of this new regulation, each product for which there is a relevant European harmonised standard, must be accompanied by a specific DoP (*Declaration of Performance*) and CE marking. Fassa Bortolo product declarations of performance can be downloaded from www.fassabortolo.com.

**DTA**
The technical application document (DTA) or technical notice (*Avis Technique*) is a voluntary procedure that allows manufacturers to ascertain compliance of a product or process with the current regulations, in order to permit the construction of a stable and durable structure. This provides the beneficiary a collegial, objective, independent and recognised technical evaluation formulated by a group of experts representing different professions, known as Specialised Groups (GS). When the request concerns a product subject to CE marking, the evaluation is issued in the form of a DTA.

**LEED - leadership in energy and environmental design**
Certification confirming that buildings are environmentally sustainable, evaluated both as regards energy usage and consumption of resources during construction. This standard is unique in that it rates every aspect involved in the design of buildings, from the choice of the construction site to efficiency of the envelope and the systems, the use of renewable energy, the quality and the comfort of the indoor environment.
ANAB
A wide range of Fassa products comply with ANAB ICEA requirements, important recognition for bio-ecological products, certifying maximum care paid to the environment and complete compliance with the strictest bio-architecture criteria.

CSTB
CSTB - Scientific and Technical Centre for the Construction Industry - is a public body for building innovation with a staff of engineers, researchers and experts in the construction industry and technologies, as well as the most advanced ICT technologies. Following a multidisciplinary approach, the body contributes to disseminating innovation in the industrial sector, transferring knowledge and technologies to a wider audience, both in France and beyond.

CSTB provides consulting services in various scientific and technical areas and contributes to the definition of standardised solutions and services for products, processes and services in the construction sector. Since 2008, the body has strengthened its support for governments in introducing policies for health and environmental risk assessment, control of energy consumption and reduction of the greenhouse effect. Since 2004, CSTB has chaired the general secretariat of the European Construction Technology Platform, which currently has more than 230 members in Europe (including E2BA members), and since 2012 has chaired EOTA (European Organization for Technical Approvals).

Green Building Council
The Green Building Council of Italy (GBC) is an international non-profit association that aims to spread sustainable building culture, to raise awareness among institutions and the public about the impact that the design and construction of buildings have on peoples’ lives, and to provide clear reference parameters for operators in the sector.

Agenzia CasaClima
Agenzia CasaClima, as an independent third-party certification body not involved in design or construction, protects the interests of those who rent or buy a home or dwelling. The CasaClima mark has been favourably received by the building sector since its inception, and has become a national catalyst for energy efficient, sustainable construction. Currently CasaClima is one of the leading energy certification marks in Europe. In addition to CasaClima certification, CasaClima plaques are also provided to enhance a property’s value. This plaque has become a symbol of comfort and energy efficiency. Only those who pass all the tests and ensure compliance with the CasaClima standard receive this symbol of high quality. It should be stressed that the CasaClima certification system guarantees competence and independence.

The prestigious Agenzia CasaClima based in Bolzano, which assesses and certifies buildings according to environmental and energy criteria, has welcomed Fassa Bortolo into its partner network. Collaboration has begun with the goal of better meeting the needs of the construction business by offering solutions that meet the certification criteria.

Indeed, in a building context where the concept of sustainable development is now becoming the driving force behind many projects, Fassa Bortolo’s commitment plays a key role in the qualification of building work that meets sustainability requirements, in particular with regard to the impact that construction and maintenance have on the environment, energy consumption and safety.
WE’VE TRIPLED OUR EFFORTS
The FASSATHERM® External Thermal Insulation Composite System is the safest choice in terms of efficiency, savings, and respect for the environment: qualities that have always distinguished Fassa Bortolo’s construction solutions. Designed with the awareness that buildings are not all the same, as well as to meet the needs of those who live or work in such buildings, FASSATHERM® is the exclusive and complete External Thermal Insulation Composite System, with a range of products that has evolved in accordance with the tenets of eco-sustainable construction.

Applicable on new constructions, but especially suitable for existing buildings, the FASSATHERM® External Thermal Insulation Composite System creates better living comfort, protects the building and extends its lifespan. Proper building insulation ensures considerable energy recovery and a consequent reduction in heating and cooling costs.

TO GUARANTEE COMFORT
WE’VE TRIPPLED OUR EFFORTS
Benefits

- High water repellency
- Excellent waterproofing properties
- Excellent thermal conductivity
- Embossed surface to optimise adhesive bonding
- Insulation panels with detensioning cuts
- Excellent stability and squareness of the moulded panels
- High compressive strength
- Easy to apply
- Available up to 240 mm thick
BASESYSTEM

A state-of-the-art External Thermal Insulation Composite System needs a perfect start, hence two specific products: the BASETHERM base panels and BASECOLL waterproofing adhesive/skim coat. The combination of these two products ensures maximum seal and protection at the base of all FASSATHERM® External Thermal Insulation Composite Systems.

1. Adhesive
   BASECOLL
   Two-component waterproofing cementitious adhesive and skim coat for BASETHERM polystyrene base panels. It features excellent adhesion and elasticity. Maximum seal and protection at the base of all FASSATHERM® External Thermal Insulation Composite Systems.

2. Base panels
   BASETHERM
   Moulded blue polystyrene base panel, classified in accordance with EN 13163. Embossed surfaces to optimise adhesive bonding and detensioning cuts to reduce surface tension in response to temperature variations. BASETHERM features improved water absorption resistance, and is used exclusively for the construction of the base level of buildings, in the area in contact with water sprays, and below ground level.

3. Skim coat
   BASECOLL
   Two-component waterproofing cementitious adhesive and skim coat for BASETHERM polystyrene base panels. It features excellent adhesion and elasticity. Maximum seal and protection at the base of all FASSATHERM® External Thermal Insulation Composite Systems.

4. Reinforcing mesh
   FASSANET 160
   160 g/m² alkali-resistant fibreglass reinforcing mesh, 4.15x3.8 mm mesh size. The mesh’s technical features and the treatment applied ensure the system can withstand impact, as well as respond to the stress deriving from sudden changes in temperature and shrinkage, preventing the formation of cracks or fissures.
Fassatherm® Classic Cycles

<table>
<thead>
<tr>
<th>Model</th>
<th>Page</th>
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<tbody>
<tr>
<td>Impact Classic</td>
<td>20</td>
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<tr>
<td>Decor Classic</td>
<td>22</td>
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<tr>
<td>Mechanic Classic</td>
<td>24</td>
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<tr>
<td>Basic Classic</td>
<td>26</td>
</tr>
</tbody>
</table>
The most impact-resistant External Thermal Insulation Composite System, obtained through the combination of the strongest adhesive and the most flexible skim coat. Tests carried out at a certified laboratory have confirmed the system’s ability to withstand impact forces that are six times higher than a conventional ETICS. Suitable for high occupancy buildings (gyms, schools, shopping centres, cinemas and hotels) and therefore more vulnerable to possible accidental impact.

**Benefits**

- High impact resistance
- Impact resistance greater than 10 J
- Up to 6 times more impact-resistant than a conventional external thermal insulation composite system
- For **high occupancy buildings**
- Good thermal insulation
- Excellent protection against the elements
- High water repellency
- Easy to apply
- Skim coat **without cement** and **ready to use**
- Available in thicknesses up to 300 mm
1. Adhesive
A 50
White and grey medium-elasticity cementitious adhesive, grading < 0.6 mm. A 50 complies with EN 998-1 and is classified GP-CSIV-W2; available in sacks and silos. The product provides maximum adhesion to all of the substrates in the FASSATHERM® External Thermal Insulation Composite System, and high compressive strength. It is used to bond and smooth over polystyrene panels in external thermal insulation composite systems, to embed reinforcing mesh and to smooth over concrete surfaces and precast elements.

2. Insulation panels
EPS 100
Expanded polystyrene thermal insulation panels, classified in accordance with EN 13163, made from high quality raw materials and cut by hot wire from previously cured blocks. Excellent thermal conductivity.

3. Mechanical fixing according to the substrate

4. Skim coat
FLEXYTHERM 11
Fibre-reinforced, cement-free skim coat paste with high elasticity, grading < 1.2 mm. Available in plastic packaging, ready to use, also applicable using a special plaster sprayer. Used to apply reinforced skim coats on EPS panels. It provides six times higher impact resistance than a classic external thermal insulation composite system.

5. Reinforcing mesh
FASSANET 370
370 g/m² alkali-resistant fibreglass reinforcing mesh, 5x5.9 mm mesh size. The mesh’s technical features and the treatment applied limit the stress applied by the system. The size and weight of the mesh make it especially suitable for limiting the stress deriving from sudden changes in temperature and shrinkage, preventing the formation of cracks or fissures. It provides the system significant surface impact resistance.

6. Primer
FX 526
Universal pigmented primer-undercoat. Especially suitable for providing the surfaces uniform coverage and excellent bonding, before applying thick coloured coatings.

7. Coating
RX 561
Rustic acrylic-siloxane coating with high water repellency and broad-spectrum protection against growth of algae and mould species. Adding a siloxane component to the acrylic resin improves breathability of the coating. Its composition allows the creation of decorative finishes with a wide range of colours.

Impact resistance tests on the FASSATHERM® External Thermal Insulation Composite System

<table>
<thead>
<tr>
<th>System (all 50 mm EPS 80 panels)</th>
<th>3 Joule impact</th>
<th>10 Joule impact</th>
<th>20 Joule impact</th>
<th>30 Joule impact</th>
<th>40 Joule impact</th>
<th>50 Joule impact</th>
<th>60 Joule impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>A50 + FASSANET 160 + RX 561 1.5 mm</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLEXYTHERM 11 + FASSANET 160 + RX 561 1.5 mm</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLEXYTHERM 11 + FASSANET 370 + RX 561 1.5 mm</td>
<td>✓</td>
<td>✓</td>
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Ball drop test - Test in accordance with UNI EN 13497
FASSA Research Centre – Spresiano (TV)
The ideal solution for applying façade decorations and aesthetically finishing the surfaces of the FASSATHERM® External Thermal Insulation Composite System. The insulation panels can be supplied complete with mouldings, or moulded directly on site using a special hot cutter.

Benefits

- Decorated surfaces for a refined aesthetic effect
- Triangular profile: 30x17 mm
- Trapezoidal profile: 30x20x17 mm
- Good thermal insulation
- Excellent protection against the elements
- Optimum water repellency
- Easy to apply
- Available in thicknesses up to 300 mm
1. **Adhesive**
   **A 96**
   Extra white, white and grey fibre-reinforced cementitious adhesive, grading < 1.4 mm. A 96 complies with EN 998-1 and is classified GP-CSIV-W2; available in sacks and silos, can also be applied by machine. It ensures easy workability and offers excellent performance. The adhesive can also be used to apply medium-thickness reinforced skim coats.

2. **Insulation panels**
   **EPS 100**
   Expanded polystyrene thermal insulation panels, classified in accordance with EN 13163, made from high quality raw materials and cut by hot wire from previously cured blocks. Excellent thermal conductivity. The insulation panels can be modelled directly on site after application, using a special cutter and preformed accessories. Alternatively, the panels can be supplied already moulded, with a 30x17 mm triangular or 30x20x17 mm trapezoidal profile.

3. **Mechanical fixing according to the substrate**

4. **Skim coat**
   **A 96**
   Extra white, white and grey fibre-reinforced cementitious adhesive, grading < 1.4 mm. A 96 complies with EN 998-1 and is classified GP-CSIV-W2; available in sacks and silos, can also be applied by machine. It ensures easy workability and offers excellent performance. The adhesive can also be used to apply medium-thickness reinforced skim coats.

5. **Reinforcing mesh**
   **FASSANET 160**
   160 g/m² alkali-resistant fibreglass reinforcing mesh, 4.15x3.8 mm mesh size. The mesh’s technical features and the treatment applied ensure the system can withstand impact, as well as respond to the stress deriving from sudden changes in temperature and shrinkage, preventing the formation of cracks or fissures.

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**PREFORMED REINFORCING MESHES**
Alkali-resistant fibreglass reinforcing mesh with preformed triangular or trapezoidal profile.

6. **Primer**
   **FX 526**
   Universal pigmented primer-undercoat. Especially suitable for providing the surfaces uniform coverage and excellent bonding, before applying thick coloured coatings.

7. **Coating**
   **RX 561**
   Rustic acrylic-siloxane coating with high water repellency and broad-spectrum protection against growth of algae and mould species. Adding a siloxane component to the acrylic resin improves breathability of the coating. Its composition allows the creation of decorative finishes with a wide range of colours.

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**Additional accessories:**
- Preformed reinforcing mesh p.46
The External Thermal Insulation Composite System is ideal for all situations in which the substrate is irregular or has poor absorption (ceramic, clinker, etc.) and thus application of a conventional ETICS may prove to be difficult and not very cost-effective. It is also used for façades made from precast concrete panels. A true thermal coating comprising guides and profiles, guaranteeing insulation against heat and cold, with tangible improvements in indoor comfort.

**Benefits**

- **Suitable** where a dry-lined cavity is required
- For substrates featuring particularly rough or irregular surfaces
- For substrates with poor absorption (ceramic, clinker, etc.);
- Exceptional flexibility
- For precast concrete façades
- Good thermal insulation
- Excellent protection against the elements
- Optimum water repellency
- Available in thicknesses up to 140 mm
1. **Fassatherm Classic insulation panels**  
*EPS 100 and EPS 70 with GRAPHITE*  
EPS thermal insulation panels and EPS panels with GRAPHITE, classified in accordance with EN 13163, made from high quality raw materials and cut by hot wire from previously cured blocks. Excellent thermal conductivity. Panel size: 50x50 cm, pre-cut along the sides.

2. **Mechanical fixing with special anchors and profiles**

3. **Skim coat**  
*FLEXYTHERM 11*  
Fibre-reinforced, cement-free skim coat paste with high elasticity, grading < 1.2 mm. Available in plastic packaging, ready to use, also applicable using a special plaster sprayer. Used to apply reinforced skim coats on EPS panels. It provides six times higher impact resistance than a classic external thermal insulation composite system.

4. **Reinforcing mesh**  
*FASSANET 160*  
160 g/m² alkali-resistant fibreglass reinforcing mesh, 4.15x3.8 mm mesh size. The mesh's technical features and the treatment applied ensure the system can withstand impact, as well as respond to the stress deriving from sudden changes in temperature and shrinkage, preventing the formation of cracks or fissures.

5. **Primer**  
*FX 526*  
Universal pigmented primer-undercoat. Especially suitable for providing the surfaces uniform coverage and excellent bonding, before applying thick coloured coatings.

6. **Coating**  
*RX 561*  
Rustic acrylic-siloxane coating with high water repellency and broad-spectrum protection against growth of algae and mould species. Adding a siloxane component to the acrylic resin improves breathability of the coating. Its composition allows the creation of decorative finishes with a wide range of colours.
FASSATHERM® CLASSIC

BASIC CLASSIC

Reliable and efficient External Thermal Insulation Composite System, ideal for all applications that do not require specific performance features. It represents the starting point for modern and technically-advanced ETICS.

Benefits

- Optimum water repellency
- Good thermal insulation
- Excellent protection against the elements
- Reliability and durability
- Easy to apply
- Wide range of finish colours available
- Available in thicknesses up to 300 mm
1. **Adhesive**  
**A 96**  
Extra white, white and grey fibre-reinforced cementitious adhesive, grading < 1.4 mm. A 96 complies with EN 998-1 and is classified GP-CSIV-W2; available in sacks and silos, can also be applied by machine. It ensures easy workability and offers excellent performance. The adhesive can also be used to apply medium-thickness reinforced skim coats.

2. **Insulation panels**  
**EPS 80**  
Expanded polystyrene thermal insulation panels, classified in accordance with EN 13163, made from high quality raw materials and cut by hot wire from previously cured blocks. Excellent thermal conductivity.

3. **Mechanical fixing according to the substrate**

4. **Skim coat**  
**A 96**  
Extra white, white and grey fibre-reinforced cementitious adhesive, grading < 1.4 mm. A 96 complies with EN 998-1 and is classified GP-CSIV-W2; available in sacks and silos, can also be applied by machine. It ensures easy workability and offers excellent performance. The adhesive can also be used to apply medium-thickness reinforced skim coats.

5. **Reinforcing mesh**  
**FASSANET 160**  
160 g/m² alkali-resistant fiberglass reinforcing mesh, 4.15x3.8 mm mesh size. The mesh’s technical features and the treatment applied ensure the system can withstand impact, as well as respond to the stress deriving from sudden changes in temperature and shrinkage, preventing the formation of cracks or fissures.

6. **Primer**  
**FX 526**  
Universal pigmented primer-undercoat. Especially suitable for providing the surfaces uniform coverage and excellent bonding, before applying thick coloured coatings.

7. **Coating**  
**RTA 549**  
Rustic acrylic protective coating for thermally-insulated surfaces, with high water repellency and broad-spectrum protection against growth of algae and mould species. Its composition allows the creation of decorative finishes with a wide range of colours.
Fassatherm® Plus
Fassatherm® Plus Cycles

Mineral Fire Plus
The External Thermal Insulation Composite System system with mineral insulation panels manufactured by melting and spinning stone materials, featuring excellent thermal and acoustic insulation and fire protection performance. The high breathability and density of the insulation panels improve envelope energy performance in both winter and summer. The system is ideal for meeting ever increasing performance needs, due to the quality of the individual components used. This solution is recommended for use in high occupancy places, such as public buildings in general, as it features excellent behaviour in the event of fire.

**Benefits**

- Excellent thermal insulation in winter and summer
- Fire protection
- System fire classification: A2-s1-d0
- Acoustic insulation properties
- Increased thermal wave phase shift
- Optimum water repellency
- Mineral and breathable
- High water vapour permeability
- Excellent protection against the weather
- Easy to apply
- Available up to 240 mm thick
1. **Adhesive**

A 96

Extra white, white and grey fibre-reinforced cementitious adhesive, grading < 1.4 mm. A 96 complies with EN 998-1 and is classified GP-CSIV-W2; available in sacks and silos, can also be applied by machine. It ensures easy workability and offers excellent performance. The adhesive can also be used to apply medium-thickness reinforced skim coats.

2. **Insulation panels**

MINERAL WOOL 035 AND TREATED MINERAL WOOL

MINERAL WOOL thermal insulation panels, manufactured by melting and spinning stone materials, are classified according to EN 13162. Featuring excellent thermal conductivity and acoustic insulation values, these ensure high breathability of external thermal insulation composite systems. For the same thermal conductivity, MINERAL WOOL 035 has a density of 115 kg/m³, compared to 100 kg/m³ of TREATED MINERAL WOOL.


3. **Mechanical fixing according to the substrate**

4. **Skim coat**

A 96

Extra white, white and grey fibre-reinforced cementitious adhesive, grading < 1.4 mm. A 96 complies with EN 998-1 and is classified GP-CSIV-W2; available in sacks and silos, can also be applied by machine. It ensures easy workability and offers excellent performance. The adhesive can also be used to apply medium-thickness reinforced skim coats.

5. **Reinforcing mesh**

FASSANET 160

160 g/m² alkali-resistant fibreglass reinforcing mesh, 4.15x3.8 mm mesh size. The mesh’s technical features and the treatment applied ensure the system can withstand impact, as well as respond to the stress deriving from sudden changes in temperature and shrinkage, preventing the formation of cracks or fissures.

6. **Primer**

FX 526

Universal pigmented primer-undercoat. Especially suitable for providing the surfaces uniform coverage and excellent bonding, before applying thick coloured coatings.

7. **Coating**

RSR 421

Rustic silicone resin coating featuring high breathability and water repellency, and excellent weather resistance. The product features broad-spectrum protection against growth of algae and mould species. The pure siloxane resin composition provides excellent breathability and allows the coating to be used on both insulated surfaces of the FASSATHERM® External Thermal Insulation Composite System, as well as in dehumidifying cycles.

8. **Protective finish**

SKIN 432

Pure siloxane resin protective finish with excellent breathability and water repellency. Its application limits dirt build-up on the surfaces by reducing the natural cavities due to the grading of the thick coating.

---

**Alternative adhesive and skim coat:**

ECO-LIGHT 950
The proposed system aims to provide a new decorative and protective coating to the existing External Thermal Insulation Composite System, by applying a “facelift”. The ideal solution for work on existing ETICS with surface degradation, returning them to their previous splendour while maintaining thermal insulation performance and improving protection with decorative effect. Being maintenance work, definition of the various layers and components in the proposed system may be subject to variation, following careful evaluation of the substrate. In order to provide advice during design-decision making stage and avoid all possible problems, Fassa offers technical service with site inspections.

**Benefits**

- Repairs and new protection
- Designed for façade restorations
- New decorative coating
- Excellent protection against the elements
- Easy to apply
1. **Substrate preparation**

**ACTIVE ONE**

ACTIVE ONE is an aqueous solution with a high active chlorine content, for interiors and exteriors, suitable for masonry surfaces showing deterioration due to various types of hard-to-remove stains and dirt. The product is applied by brush or using the spray bottle provided, directly onto the surfaces being treated and leaving it to act for around 30 minutes.

2. **Skim coat**

**AL 88**

White cementitious adhesive, lightened with polystyrene for improved thermal performance, grading < 1.2 mm. AL 88 complies with EN 998-1 and is classified GP-CSII-W2; available in sacks and silos, it can also be applied by machine. It ensures easier workability and at the same time improves the thermal resistance of the entire FASSATHERM® External Thermal Insulation Composite System. It is also used to apply thick reinforced skim coats.

3. **Reinforcing mesh**

**FASSANET MAXI**

160 g/m² alkali-resistant fibreglass reinforcing mesh, 7.1x7.7 mm mesh size. The mesh's technical features and the treatment applied limit the stress applied by the system, preventing the formation of cracks or fissures. Its features make it ideal for use on lightweight skim coats applied in thick layers. In addition, the size of the mesh means it is especially suitable for use with medium-coarse gradings.

4. **Primer**

**FX 526**

Universal pigmented primer-undercoat. Especially suitable for providing the surfaces uniform coverage and excellent bonding, before applying thick coloured coatings.

5. **Coating**

**RX 561**

Rustic acrylic-siloxane coating with high water repellency and broad-spectrum protection against growth of algae and mould species. Adding a siloxane component to the acrylic resin improves breathability of the coating. Its composition allows the creation of decorative finishes with a wide range of colours.

6. **Protective finish**

**SKIN 432**

Pure siloxane resin protective finish with excellent breathability and water repellency. Its application limits dirt build-up on the surfaces by reducing the natural cavities due to the grading of the thick coating.

7. **Decoration**

**DESIDERI VELO**

Water-based acrylic-siloxane decorative finish with an antique effect. Used for decorating exterior and interior walls of buildings in a classic or modern style, when wanting to give the masonry work an antique appearance with glazed, clouded and shaded effects.

**Additional accessories:**

- Cutter for restoration work p. 44
Products and accessories
for Fassatherm® System
ADHESIVES, SKIM COATS AND INSULATION PANELS

Adhesives and skim coats

The quality of our adhesive/skim coats products is controlled through accurate and constant tests carried out at our advanced research laboratories. The raw materials used are carefully selected and checked, so as to produce high-performance and reliable products. The products developed, both using cement and NHL 3.5 natural lime, comply with EN UNI 998-1 and are combined with special aggregate to provide different performance characteristics.

Each adhesive is formulated and tested to develop and achieve the highest performance in terms of adhesion to the insulation panels, providing stability and strength to the FASSATHERM® External Thermal Insulation Composite System.

The main function of the adhesive is to create a solid bonding bridge between the substrate and the panel and counteract the forces acting parallel to the plane of the substrate. The panels are bonded by spreading the adhesive in two different ways:

- Full surface application
- Application in “strips and dots”

Once the panels have been bonded and mechanically-fixed, the reinforced skim coat is applied. The reinforced skim coat consists of two layers of skim coat embedded with alkaline-resistant fibreglass mesh. The reinforcing mesh has the function of ensuring the system can withstand knocks, as well as respond to the stress deriving from sudden changes in temperature and shrinkage, minimising the formation of cracks or fissures.

The reinforced skim coat is created by first applying a thick layer of skim coat and embedding the reinforcing mesh.

When the first layer has dried, the second layer of skim coat is applied. This ensures that the embedded mesh will be positioned correctly, that is, towards the surface (exterior) of the reinforced skim coat.

Correct application of the reinforced skim coat involves the use of all the accessories needed to ensure the system continuity and reliability in the most critical areas (horizontal and vertical edges, corners under balconies or cornices).
ECO-LIGHT 950
Fibre-reinforced lightweight adhesive-skim coat made from NHL 3.5 natural hydraulic lime

- **Lightened** (950 kg/m³)
- Very high **breathability**
- Made from **NHL 3.5 Natural Hydraulic Lime**
- Fibre-reinforced
- Manufactured using **recyclable** and **recycled materials**
- **Mineral**
- **Environmentally friendly**
- Specifically for systems with **mineral and natural panels**
- Ideal for **thick applications**
- **Excellent performance and workability**
- **Light and easy to apply**

**ECO-LIGHT 950**
Adhesive made from NHL 3.5 natural hydraulic lime, light aggregate of expanded glass and fibreglass, grading < 1.4 mm. ECO-LIGHT 950 is compliant with standard EN 998-1 and is classified GP-CSIII-W2; available in sacks.

It is used to bond and smooth over mineral wool, cork, calcium silicate hydrate and wood fibre insulation panels in external thermal insulation composite systems.

It allows easier workability and at the same time ensures the breathability of walls insulated using the FASSATHERM® External Thermal Insulation Composite System.

<table>
<thead>
<tr>
<th><strong>SPECIFIC WEIGHT</strong></th>
<th>950 kg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRADING</strong></td>
<td>&lt; 1.4 mm</td>
</tr>
<tr>
<td><strong>YIELD AS ADHESIVE</strong></td>
<td>approx. 4-6 kg/m²</td>
</tr>
<tr>
<td><strong>YIELD AS SKIM COAT</strong></td>
<td>approx. 1 kg/m² per mm in thickness</td>
</tr>
<tr>
<td><strong>COEFF. OF THERMAL CONDUCTIVITY</strong></td>
<td>$\lambda = 0.31$ W/m·K (tabulated value)</td>
</tr>
<tr>
<td><strong>WATER VAPOUR RESISTANCE</strong></td>
<td>$\mu = 13$ (measured value)</td>
</tr>
<tr>
<td><strong>APPLICATION THICKNESS</strong></td>
<td>5-10 mm</td>
</tr>
<tr>
<td><strong>APPLICATION</strong></td>
<td>By hand with metal trowel</td>
</tr>
<tr>
<td><strong>SUPPLY</strong></td>
<td>25 kg sacks</td>
</tr>
</tbody>
</table>
AL 88
White, lightened cementitious adhesive

- **Lightened** (950 kg/m³)
- Improved thermal conductivity
- Grading 1.2 mm
- Can also be applied by machine
- Available in sacks and silos
- Extra-white
- Also suggested for reinforced skim coats
- Ideal for thick applications
- Excellent performance and workability
- Light and easy to apply
- Extended working time

**AL 88**
White cementitious adhesive and skim coat, lightened with polystyrene for improved thermal performance, grading < 1.2 mm. AL 88 complies with EN 998-1 and is classified GP-CSII-W2; available in sacks and silos, it can also be applied by machine. It is used to bond and smooth over EPS, mineral wool and calcium silicate hydrate insulation panels in external thermal insulation composite systems.

It ensures easier workability and at the same time improves the thermal conductivity of the entire FASSATHERM® External Thermal Insulation Composite System. It is also used to apply thick reinforced skim coats.

<table>
<thead>
<tr>
<th>SPECIFIC WEIGHT</th>
<th>950 kg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADING</td>
<td>&lt; 1.2 mm</td>
</tr>
<tr>
<td>YIELD AS ADHESIVE</td>
<td>approx. 4-6 kg/m²</td>
</tr>
<tr>
<td>YIELD AS SKIM COAT</td>
<td>approx. 1 kg/m² per mm in thickness</td>
</tr>
<tr>
<td>COEFF. OF THERMAL CONDUCTIVITY</td>
<td>λ= 0,38 W/m·K (tabulated value)</td>
</tr>
<tr>
<td>APPLICATION THICKNESS</td>
<td>5-10 mm</td>
</tr>
<tr>
<td>APPLICATION</td>
<td>By hand with metal trowel or by machine</td>
</tr>
<tr>
<td>SUPPLY</td>
<td>25 kg sacks and silos in bulk</td>
</tr>
</tbody>
</table>
ADHESIVES AND SKIM COATS

A 96
Cementitious adhesive-skim coat

- Fibre-reinforced
- Grading 1.4 mm
- Can also be applied by machine
- Available in sacks and silos
- Extra white, white and grey
- Also suggested for reinforced skim coats

SPECIFIC WEIGHT 1350 kg/m³
GRADING < 1.4 mm
YIELD AS ADHESIVE approx. 4-6 kg/m²
YIELD AS SKIM COAT approx. 1.5 kg/m² per mm in thickness
COEFF. OF THERMAL CONDUCTIVITY \( \lambda = 0.75 \text{ W/m·K} \) (tabulated value)
APPLICATION THICKNESS 5-6 mm
APPLICATION By hand with metal trowel or by machine
SUPPLY 25 kg sacks and bulk in silos

A 50
Cementitious adhesive-skim coat

- Maximum adhesion to the substrate
- Grading 0.6 mm
- Flexural strength 6 N/mm²
- Compressive strength 12 N/mm²
- High impact resistance
- White and grey
- Available in sacks and silos

SPECIFIC WEIGHT 1300 kg/m³
GRADING < 0.6 mm
YIELD AS ADHESIVE approx. 4-6 kg/m²
YIELD AS SKIM COAT approx. 1.4 kg/m² per mm in thickness
COEFF. OF THERMAL CONDUCTIVITY \( \lambda = 0.75 \text{ W/m·K} \) (tabulated value)
APPLICATION THICKNESS 2-5 mm
APPLICATION By hand with metal trowel
SUPPLY 25 kg sacks and bulk in silos
FLEXYTERM 11
Cement-free reinforced skim coat paste with organic binders

Fibre-reinforced, cement-free skim coat paste with high elasticity, grading < 1.2 mm. Available packaged and ready to use. It is used to apply reinforced skim coats on EPS insulation panels. It provides six times higher impact resistance than a classic external thermal insulation composite system.

- Ready to use
- Cement-free
- White
- Excellent workability
- Flexibility
- High impact resistance

SPECIFIC WEIGHT OF FRESH PRODUCT 1500 kg/m³

<table>
<thead>
<tr>
<th>SPECIFIC WEIGHT</th>
<th>1500 kg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADING</td>
<td>&lt; 1.2 mm</td>
</tr>
<tr>
<td>YIELD AS SKIM COAT</td>
<td>approx. 6.2-6.8 kg/m² per mm in thickness</td>
</tr>
<tr>
<td>COEFF. OF THERMAL CONDUCTIVITY</td>
<td>$\lambda = 0.70$ W/m·K (tabulated value)</td>
</tr>
<tr>
<td>APPLICATION THICKNESS</td>
<td>approx. 3 mm</td>
</tr>
<tr>
<td>APPLICATION</td>
<td>By hand with metal trowel or by machine</td>
</tr>
<tr>
<td>SUPPLY</td>
<td>25 kg packs</td>
</tr>
</tbody>
</table>

baseColl®
Two-component cementitious adhesive and waterproofing coating for polystyrene base panels

Two-component waterproofing cementitious adhesive and skim coat for EPS BASETHERM insulation base panels. It features excellent adhesion and elasticity. Maximum seal and protection at the base of all FASSATHERM® External Thermal Insulation Composite Systems.

- Waterproofing
- Two-component
- Specifically for base panels

SPECIFIC WEIGHT OF FRESH PRODUCT 1700 kg/m³

<table>
<thead>
<tr>
<th>SPECIFIC WEIGHT OF FRESH PRODUCT</th>
<th>1700 kg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADING</td>
<td>&lt; 0.6 mm COMP. A</td>
</tr>
<tr>
<td>YIELD AS ADHESIVE</td>
<td>approx. 4-5 kg/m²</td>
</tr>
<tr>
<td>YIELD AS SKIM COAT</td>
<td>approx. 1.7 kg/m² per mm in thickness</td>
</tr>
<tr>
<td>COEFF. OF THERMAL CONDUCTIVITY</td>
<td>$\lambda = 0.66$ W/m·K (tabulated value)</td>
</tr>
<tr>
<td>APPLICATION THICKNESS</td>
<td>3 mm</td>
</tr>
<tr>
<td>APPLICATION</td>
<td>By hand with metal trowel</td>
</tr>
<tr>
<td>ADHESION BETWEEN ADHESIVE AND EPS PANEL (ETAG 004, 5.1.4.1.3)</td>
<td>$\geq 0.08$ N/mm²</td>
</tr>
<tr>
<td>SUPPLY</td>
<td>Comp. A: 25 kg sacks Comp. B: 10.75 kg pack</td>
</tr>
</tbody>
</table>
Thermal insulation panels are used to install FASSATHERM® External Thermal Insulation Composite Systems on the exterior walls of newly-constructed buildings or in renovations of existing buildings.

In an External Thermal Insulation Composite System, the panel is the main layer, with the key function of thermally insulating the opaque envelope it is applied to. For this reason, the panels must feature low thermal conductivity values, thus providing high heat transfer resistance.

Thermal resistance is an important parameter, and varies according to panel thickness. The thickness of the panel is defined based on thermal insulation requirements and, in any case, in compliance with legislation in force (in Italy, leg. decree no.192/2005 and later amendments, and decree of 26 June 2015 regarding the required checks).

In addition to thermal insulation performance, other technical parameters may vary depending on the different insulating materials, affecting the choice of the type of panel. Among these, it is important to analyse performance in terms of fire reaction, water vapour resistance, compressive strength, flexural strength, tensile strength, dimensional stability etc...

A mineral wool panel, offers a higher Euroclass fire reaction classification, as mineral fibres are non-combustible. Mineral wool also offers greater thermal wave phase shift, due to higher density, thus improving envelope energy performance in both winter and summer.

As a result, the best FASSATHERM® External Thermal Insulation Composite System solution is evaluated based on performance requirements, starting with the choice of the most suitable insulation panel.

Insulation panels covered by the product standard are classified according to specific characteristics, such as flatness and squareness tolerances, mechanical strength, fire behaviour, etc. Regarding our products, the table below lists the main product standards.
FIXING ELEMENTS

Mechanical fixing by anchors is used in addition to bonding the insulation panels to the substrate with adhesive.

The main function of these anchors is not to absorb the adhesion or load-bearing forces of the panels, but rather to provide adhesion stability over time, which may be compromised by improper substrate preparation and wind loads.

In other words, the adhesive counteracts forces that are parallel to the substrate, while the anchors counteract forces that are perpendicular to the substrate.

The anchors used must comply with the requirements of ETAG 014. The anchors must be chosen both depending on the type of masonry substrate that the FASSATHERM® External Thermal Insulation Composite System is applied to, and the type of insulation used.

The following table lists the various types of anchors that can be used:

<table>
<thead>
<tr>
<th>Anchor type</th>
<th>Substrate</th>
<th>Fixing type</th>
<th>Type of insulation panel</th>
<th>Anchoring depth</th>
<th>Approval according to ETAG 014</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP FIX 2G ANCHOR</td>
<td>A - B - C - D - E¹</td>
<td>screwed-in</td>
<td>EPS - MW - ICB WF - CSB</td>
<td>25 mm*</td>
<td>YES</td>
</tr>
<tr>
<td>COMBI FIX ANCHOR</td>
<td>A - B - C</td>
<td>percussion</td>
<td>EPS - MW² ICB - WF</td>
<td>25 mm</td>
<td>YES</td>
</tr>
<tr>
<td>WOOD FIX ANCHOR</td>
<td>Wood</td>
<td>screwed-in</td>
<td>EPS - MW ICB - WF</td>
<td>30 mm</td>
<td>NO</td>
</tr>
</tbody>
</table>

¹65 mm substrate “E”

1. European approval of plastic anchors for fixing of external thermal insulation systems with rendering.
2. The additional washer should be used for mineral wool panels.

<table>
<thead>
<tr>
<th>Substrate types according to ETAG014</th>
<th>Substrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Solid concrete</td>
</tr>
<tr>
<td>B</td>
<td>Solid brick</td>
</tr>
<tr>
<td>C</td>
<td>Hollow brick</td>
</tr>
<tr>
<td>D</td>
<td>Lightweight concrete</td>
</tr>
<tr>
<td>E</td>
<td>Foamed concrete</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Types of insulation panels</th>
<th>Plasterboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS</td>
<td>Expanded polystyrene</td>
</tr>
<tr>
<td>MW</td>
<td>Mineral wool</td>
</tr>
<tr>
<td>ICB</td>
<td>Cork</td>
</tr>
<tr>
<td>WF</td>
<td>Wood fibre</td>
</tr>
<tr>
<td>CSB</td>
<td>Calcium silicate hydrate</td>
</tr>
</tbody>
</table>

It should be remembered that the height of the building and its geographic location also influence the number of anchors needed for application. This is especially true for areas at the edge of the building that are most subject to wind forces.
FASSA TOP FIX 2G ANCHOR
Screw anchor with washer

- ETA approval for all building materials
- With washer for a flush surface and uniform skim coat application
- Simple and fast application
- Reduced anchoring depth
- Maximum load capacity
- Screw pre-assembled for fast mounting
- Optimised thermal bridge
- Available for insulation thicknesses from 60 to 420 mm
- Hole depth: 35 mm (A-B-C-D flush), 75 mm (E flush), 55 mm (ABCD recessed), 95 mm (E recessed)
- Anchoring depth: 25 mm (ABCD), 65 mm (E)

<table>
<thead>
<tr>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>289920</td>
<td>115 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289921</td>
<td>135 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289922</td>
<td>155 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289923</td>
<td>175 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289924</td>
<td>195 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289925</td>
<td>215 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289926</td>
<td>235 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289927</td>
<td>255 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289928</td>
<td>275 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289929</td>
<td>295 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289930</td>
<td>315 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289931</td>
<td>335 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289932</td>
<td>355 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289933</td>
<td>375 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289934</td>
<td>395 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289935</td>
<td>415 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289936</td>
<td>435 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289937</td>
<td>455 mm</td>
<td>100 pcs.</td>
</tr>
</tbody>
</table>
FIXING ELEMENTS

FASSA COMBI FIX ANCHOR
Universal anchor for percussion drills

- Steel nail
- ETA approval for concrete and brick
- High loadability
- Nail pre-assembled
- Excellent price/performance ratio
- Available for insulation thicknesses from 60 to 260 mm
- Hole depth: 35 mm
- Anchoring depth: 25 mm

<table>
<thead>
<tr>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>289950</td>
<td>95 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289951</td>
<td>115 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289952</td>
<td>135 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289953</td>
<td>155 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289954</td>
<td>175 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289955</td>
<td>195 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289956</td>
<td>215 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289957</td>
<td>235 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289958</td>
<td>255 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289959</td>
<td>275 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289960</td>
<td>295 mm</td>
<td>100 pcs.</td>
</tr>
</tbody>
</table>

FASSA WOOD FIX ANCHOR
Screw-in anchor with washer for wood and metal

- Especially designed for wood and sheet metal
- Fast, neat mounting
- Can be mounted with washer or flush using the attached stop plug
- Screw-in depth: 30-40 mm

<table>
<thead>
<tr>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>289178</td>
<td>80 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289183</td>
<td>100 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289182</td>
<td>120 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289179</td>
<td>140 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289184</td>
<td>160 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289181</td>
<td>180 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289191</td>
<td>200 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289192</td>
<td>220 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289193</td>
<td>240 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289198</td>
<td>260 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289199</td>
<td>280 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289168</td>
<td>300 mm</td>
<td>100 pcs.</td>
</tr>
</tbody>
</table>
REINFORCING MESH

Fibreglass mesh is essential for reinforcing the entire FASSATHERM® External Thermal Insulation Composite System. Its function is to provide the system adequate capacity to withstand movement of the insulating material over time, due to temperature variations or shrinkage, preventing the formation of cracks on the façade. In addition, they also feature strong resistance to the alkali nature of cement.

**FASSANET 160**  
160 g/m² alkali-resistant mesh, 4.15x3.8 mm mesh size approx. 50 m² roll

<table>
<thead>
<tr>
<th>Weight</th>
<th>160 g/m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll size</td>
<td>50 m²</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part number</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>700960</td>
<td>1 roll (1x50 m)</td>
</tr>
</tbody>
</table>

**FASSANET 370**  
370 g/m² alkali-resistant mesh, 5x5.9 mm mesh size approx. 75 m² roll

<table>
<thead>
<tr>
<th>Weight</th>
<th>370 g/m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll size</td>
<td>75 m²</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part number</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>700962</td>
<td>1 roll (1x50 m)</td>
</tr>
</tbody>
</table>

**FASSANET MAXI**  
160 g/m² alkali-resistant mesh, 7.1x7.7 mm mesh size approx. 50 m² roll

<table>
<thead>
<tr>
<th>Weight</th>
<th>160 g/m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll size</td>
<td>50 m²</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part number</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>700960MA</td>
<td>1 roll (1x50 m)</td>
</tr>
</tbody>
</table>

**PREFORMED REINFORCING MESH**  
Trapezoidal and triangular profile for aesthetic finishes on the façade

<table>
<thead>
<tr>
<th>Weight</th>
<th>160 g/m²</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Profile</th>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trapezoidal</td>
<td>700905</td>
<td>30x20x17 mm</td>
<td>10 pcs.</td>
</tr>
<tr>
<td>Triangular</td>
<td>700906</td>
<td>30x17 mm</td>
<td>10 pcs.</td>
</tr>
</tbody>
</table>
Products and Accessories
for Fassatherm® Mechanical System
MECHANICAL SYSTEM

The mechanical external thermal insulation composite system comprises a kit of accessories including guides and profiles. Proper installation ensures a safe and high-performance system through the use of carefully chosen accessories. These are used to create a framework structure that can withstand and absorb any tension and stress, while maintaining the system’s thermal performance. Preliminary checks should be performed to choose the most suitable anchor for the different types of substrate.

### PVC BASE PROFILE FOR MECHANICAL SYSTEM

<table>
<thead>
<tr>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>701090</td>
<td>2,500 mm</td>
<td>20 pcs.</td>
</tr>
</tbody>
</table>

### PVC VERTICAL PROFILE FOR MECHANICAL SYSTEM

<table>
<thead>
<tr>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>701091</td>
<td>490 mm</td>
<td>50 pcs.</td>
</tr>
</tbody>
</table>

### PVC HORIZONTAL PROFILE FOR MECHANICAL SYSTEM

<table>
<thead>
<tr>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>701092</td>
<td>2,500 mm</td>
<td>20 pcs.</td>
</tr>
</tbody>
</table>

### FASSA ROTO MECHANIC FIX

Anchor for fixing the profiles

<table>
<thead>
<tr>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>289785</td>
<td>45 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289786</td>
<td>65 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289787</td>
<td>85 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289788</td>
<td>105 mm</td>
<td>100 pcs.</td>
</tr>
</tbody>
</table>

### FASSA MECHANIC FIX

Percussion drill anchor for mounting guides and profiles on concrete, solid and hollow brick

<table>
<thead>
<tr>
<th>Part number</th>
<th>Length</th>
<th>Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>289791</td>
<td>45 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289792</td>
<td>65 mm</td>
<td>100 pcs.</td>
</tr>
<tr>
<td>289793</td>
<td>85 mm</td>
<td>100 pcs.</td>
</tr>
</tbody>
</table>
Decorative Profiles
for the Fassatherm® System
DECORATIVE PROFILES

A wide range of standard elements, profiles for windows, strips, stringcourses, cornices, etc. is available for decorating the façades of buildings (both new and under renovation) in a classic or modern style. The various elements are made from moulded EPS, with a surface layer comprising selected water-based and silicone polymers that makes the end product both durable and elastic. Easy to install due to its light weight, these are ideal for exterior use or to be painted over using water-based paints. Reduced thermal expansion helps prevent the formation of surface cracks, while reduced water absorption capacity ensures optimum frost resistance. Fastening is simple: the profiles are bonded directly to the façade using A 50 adhesive and rendered using SYLAN 290 sealant to prevent water infiltration. Application of an elastomer cycle (FOND-ELAST 223 + PE 224 ELAST) then provides final protection.

### PROFILES FOR WINDOWS

<table>
<thead>
<tr>
<th>Profile</th>
<th>Width</th>
<th>Height</th>
<th>Length</th>
</tr>
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<tbody>
<tr>
<td>50</td>
<td>21.5</td>
<td>110</td>
<td>116</td>
</tr>
<tr>
<td>30</td>
<td>110</td>
<td>21.7</td>
<td>116</td>
</tr>
</tbody>
</table>

### STRINGCOURSES

<table>
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<tr>
<th>Profile</th>
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<th>Height</th>
<th>Length</th>
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<tbody>
<tr>
<td>90</td>
<td>110</td>
<td>217</td>
<td>116</td>
</tr>
<tr>
<td>110</td>
<td>110</td>
<td>217</td>
<td>116</td>
</tr>
</tbody>
</table>

### SIMPLE STRIPS

<table>
<thead>
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<th>Profile</th>
<th>Width</th>
<th>Height</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>150</td>
<td>175</td>
<td>35</td>
</tr>
<tr>
<td>110</td>
<td>150</td>
<td>175</td>
<td>35</td>
</tr>
</tbody>
</table>

### GUTTER CORNICES

<table>
<thead>
<tr>
<th>Profile</th>
<th>Width</th>
<th>Height</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>300</td>
<td>160</td>
<td>35</td>
</tr>
<tr>
<td>200</td>
<td>300</td>
<td>160</td>
<td>35</td>
</tr>
</tbody>
</table>

The drawings are purely for illustrative purposes: the decorative profiles can be reproduced in all shapes and sizes on request.
DECORATIVE PROFILES

The drawings are purely for illustrative purposes: the decorative profiles can be reproduced in all shapes and sizes on request.
Protective finishes
for the Fassatherm® System
PROTECTIVE FINISHES

To correctly complete application of the FASSATHERM® External Thermal Insulation Composite System, it is necessary to apply thick decorative and protective finishes.

The coloured coatings have been designed to carry out two very important functions: Protection and Decoration.

Protection is an essential requirement for products used as exterior decorative finishes; these must be able to protect the underlying layers against aggression by the elements. No less important is the decorative function, as the finish must be able to satisfy the desired aesthetic and chromatic characteristics.

In order to meet all of these requirements, Fassa has developed thick decorative finishes for the FASSATHERM® External Thermal Insulation Composite System.

These coatings, formulated with different types of binders, have been designed with specific features.

- **SILICONE RESIN COATING:**
  High water repellency and excellent breathability with improved weather resistance;

- **ACRYLIC-SILOXANE COATING:**
  Excellent water repellency, good breathability and high protection;

- **ACRYLIC COATING:**
  Excellent outdoor protection and high elasticity;

- **SILICATE COATING:**
  High breathability and mineral appearance.
CHOICE OF COLOURS: Reflection Index 'Y'

The reflection index Y is a percentage that represents the ratio between the amount of reflected light radiation and the amount of incident light radiation.

In qualitative terms and identifying a scale from 0 to 100 (Y = 0% black, Y = 100% white), the lower the value of Y, the more light radiation is absorbed by the irradiated material.

With External Thermal Insulation Composite Systems that significantly limit heat transmission, colours with a low Y value (dark colours) cause the façades to overheat.

The increase in façade surface temperature can cause a number of possible problems:

- The EPS panel reaches the softening point;
- Early ageing of the paint regarding both the binder and the colourant;
- Decline in system insulation performance;
- Different thermoplastic movements between heterogeneous building elements;
- Formation of cracks.

For these reasons, the recommended colours for decorative finishes (thick coatings) should have a Y index higher than 25. For façades exposed to strong sunlight or insulation panels that are 10 cm thick or more, Y must be greater than 30.

Consequently, to protect the system against these problems, but above all to avoid a decline in thermal insulation performance, it is always advisable to use a light colour on the façade.
EVERY DAY, THE EXTERIOR OF BUILDINGS IS COLOURED ANEW

The new “365 - A YEAR OF COLORS” chart offers an exclusive selection of colours for exteriors, 365 in fact, ranging from lighter to darker tones, from brighter to flatter, and is divided into seven sections based on different colour trends, offering the maximum expressive freedom.
FX 526
Universal pigmented primer-undercoat

FX 526
FX 526 is a pigmented undercoat used as a filling primer-undercoat for various types of thick finish coatings in aqueous emulsion: synthetic, mineral, silicate or siloxane.

Thanks to its hiding power it creates a uniform, coloured surface; at the same time, the fine aggregate ensures better adhesion of thick finish coatings both on the FASSATHERM® External Thermal Insulation Composite System and on painted masonry substrates.

- Frame
- White or pigmented
- Filling effect
- For thick coatings
- Improves anchoring
- Excellent hiding power
- For interiors and exteriors
- Easy application

<table>
<thead>
<tr>
<th>SPECIFIC WEIGHT</th>
<th>approx. 1,61 kg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>DILUTION</td>
<td>in water approx. 5%</td>
</tr>
<tr>
<td>YIELD</td>
<td>approx. 6-8 m²/l</td>
</tr>
<tr>
<td>APPLICATION</td>
<td>By brush or roller</td>
</tr>
<tr>
<td>SUPPLY</td>
<td>5 and 14 litre packs</td>
</tr>
</tbody>
</table>

COLOURS
selection from the colour chart: 365 A YEAR OF COLORS
FS 412
Primer for silicone-resin cycles

FS 412 is a water-based primer-undercoat used to insulate, prepare or stabilise the substrate before applying Silicone Resin system finish coat products, without however affecting substrate breathability.

- Specific for silicone-resin cycles
- Water-based insulating primer

<table>
<thead>
<tr>
<th>SPECIFIC WEIGHT</th>
<th>approx. 1.00 kg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>DILUTION IN WATER BY WEIGHT</td>
<td>1 part FS 412 to 1 part water</td>
</tr>
<tr>
<td>YIELD</td>
<td>approx. 7-9 m²/l</td>
</tr>
<tr>
<td>APPLICATION</td>
<td>By brush or roller</td>
</tr>
<tr>
<td>SUPPLY</td>
<td>16 litre packs</td>
</tr>
<tr>
<td>COLOUR</td>
<td>transparent</td>
</tr>
</tbody>
</table>
FA 249
Primer for acrylic system products

FA 249 is a water-based primer-undercoat used to insulate, prepare or stabilise the substrate before applying Acrylic system finish coat products, for both interiors and exteriors.

- Water-based product
- Ensures uniformity and reduces absorption
- High yield

SPECIFIC WEIGHT
approx. 1.00 kg/l

DILUTION IN WATER BY WEIGHT
1 part FA 249 to 6-8 parts water

YIELD
approx. 25 m²/l

APPLICATION
By brush or roller

SUPPLY
Boxes of 12 x 1 litre, 5 and 16 litre packs

COLOUR
transparent

FASSIL F 328
Silicate primer

FASSIL F 328 is a water-based primer-undercoat made from potassium silicate, used to insulate, prepare or stabilise the substrate before applying Silicate system finish coat products, for both interiors and exteriors.

- Mineral-based primer-undercoat
- Very high breathability

SPECIFIC WEIGHT
approx. 1.00 kg/l

DILUTION IN WATER BY WEIGHT
1 part FASSIL F 328 to 1 part water

YIELD
approx. 7-9 m²/l

APPLICATION
By brush or roller

SUPPLY
16 litre packs

COLOUR
transparent
RSR 421
Silicone resin coating with rustic finish

RSR 421 is a water-based finish coat that ensures breathability, water repellency and excellent weather resistance. RSR 421 is suitable for application on any type of plaster, including dehumidifying plasters and substrates insulated with the FASSATHERM® External Thermal Insulation Composite System. Compliant with standard EN 15824.

- Water repellent and breathable
- Broad-spectrum protection against growth of algae and mould species

RX 561
Rustic acrylic siloxane coating

RX 561 is a finish coat putty made from acrylic copolymers, special polysiloxanes and specific additives to provide the product broad-spectrum protection against algae and mould species. RX 561 provides a rustic surface finish and is used as a protective and decorative coating for exteriors. Also available in the winter version. Compliant with standard EN 15824.

- Optimum water repellency
- Good breathability
- High protection
- Broad-spectrum protection against growth of algae and mould species

SPECIFIC WEIGHT: approx. 1.85 kg/l
READY TO USE

GRADINGS AVAILABLE:
- 0.6 mm
- 1 mm
- 1.5 mm
- 2 mm
- 3 mm

CONSUMPTION:
- 0.6 mm: approx. 2.5-3.2 kg/m² for 2 layers
- 1 mm: approx. 2-2.5 kg/m²
- 1.5 mm: approx. 2.3-2.7 kg/m²
- 2 mm: approx. 2.6-3.4 kg/m²
- 3 mm: approx. 3.8-4.2 kg/m²

APPLICATION: By metal or plastic trowel
SUPPLY: 25 kg packs
COLOURS: selection from the colour chart: 365 A YEAR OF COLORS

(ETA and BBA certification valid only for 1 - 1.5 - 2 mm gradings)
RTA 549
Acrylic protective coating

RTA 549 is a finish coat putty mainly used as a special protective and decorative coating for exteriors and on the FASSATHERM® External Thermal Insulation Composite System.
Compliant with standard EN 15824

- Excellent outdoor protection
- Broad-spectrum protection against growth of algae and mould species

| SPECIFIC WEIGHT | approx. 1.85 kg/l |
| DILUTION IN WATER BY WEIGHT | up to 2% if necessary |
| GRADINGS AVAILABLE | 1-1.5-2 mm |
| CONSUMPTION 1 mm | approx. 2-2.5 kg/m² |
| CONSUMPTION 1.5 mm | approx. 2.3-2.7 kg/m² |
| CONSUMPTION 2 mm | approx. 2.6-3.4 kg/m² |
| APPLICATION | By metal or plastic trowel |
| SUPPLY | 25 kg packs |
| COLOURS | selection from the colour chart: 365 A YEAR OF COLORS |

FASSIL R 336
Silicate coating with rustic finish

FASSIL R 336 is a finish coat for exteriors and interiors made from stabilised potassium silicate, with very high breathability, compliant with standard DIN 18363. FASSIL R 336 is especially suitable when very high breathability is required, such as in restoration work and on historic buildings.
Compliant with standard EN 15824.

- Very high breathability
- Mineral appearance
- Ideal for historic buildings

| SPECIFIC WEIGHT | approx. 1.85 kg/l |
| READY TO USE | |
| GRADINGS AVAILABLE | 0.6-1-1.5 mm |
| CONSUMPTION 0.6 mm | approx. 2.5-3.2 kg/m² for 2 layers |
| CONSUMPTION 1 mm | approx. 2.2-9 kg/m² |
| CONSUMPTION 1.5 mm | approx. 2.3-2.9 kg/m² |
| APPLICATION | By metal or plastic trowel |
| SUPPLY | 25 kg packs |
| COLOURS | selection from the colour chart: 365 A YEAR OF COLORS |
**SKIN 432**
Protective siloxane finish

SKIN 432 is a finish for exteriors featuring optimum water repellency and very high breathability, characteristics that allow versatile application of the product, from finishes on new and existing plasters, to the treatment of façades insulated with the FASSATHERM® External Thermal Insulation Composite System. In addition, thanks to the special formulation, façades treated with SKIN 432 tend to remain cleaner than façades with traditional finishes for exteriors.

- Maximum façade protection and cleanliness
- Optimum water repellency
- Broad-spectrum protection against growth of algae and mould species

**ACTIVE ONE**
Detergent solution for cleaning masonry surfaces

ACTIVE ONE is an aqueous solution with a high active chlorine content, for interiors and exteriors, suitable for masonry surfaces showing deterioration due to various types of hard-to-remove stains and dirt. The product is applied by brush or using the spray bottle provided, directly onto the surfaces being treated and leaving it to act for around 30 minutes.

- Detergent for walls
- For interiors and exteriors

### SPECIFICATIONS - SKIN 432

<table>
<thead>
<tr>
<th><strong>SPECIFIC WEIGHT</strong></th>
<th>approx. 1.55 kg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DILUTION IN WATER BY WEIGHT</strong></td>
<td>First coat and any intermediate coats 15%, finishing coat to be diluted to 5-10% by weight, depending on the chosen colour</td>
</tr>
<tr>
<td><strong>YIELD</strong></td>
<td>approx. 4-5 m²/l (2 coats)</td>
</tr>
<tr>
<td><strong>APPLICATION</strong></td>
<td>By brush or roller</td>
</tr>
<tr>
<td><strong>SUPPLY</strong></td>
<td>14 litre packs</td>
</tr>
<tr>
<td><strong>COLOURS</strong></td>
<td>selection from the colour chart: 365 A YEAR OF COLORS</td>
</tr>
</tbody>
</table>

### SPECIFICATIONS - ACTIVE ONE

<table>
<thead>
<tr>
<th><strong>SPECIFIC WEIGHT</strong></th>
<th>approx. 1.19 kg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DILUTION</strong></td>
<td>Ready-to-use</td>
</tr>
<tr>
<td><strong>YIELD</strong></td>
<td>approx. 6-8 m²/l per coat</td>
</tr>
<tr>
<td><strong>APPLICATION</strong></td>
<td>By brush or spray</td>
</tr>
<tr>
<td><strong>SUPPLY</strong></td>
<td>Boxes of 12 x 0.5 litre bottles and boxes of 2 x 5 litre containers</td>
</tr>
</tbody>
</table>
DESIDERI VELO is a water-based acrylic-siloxane decorative finish giving an antique effect. Used for decorating exterior and interior walls of buildings in a classic or modern style, when wanting to give the masonry work an antique appearance with glazed, clouded and shaded effects.

- Antique appearance with shaded effects
- For interiors and exteriors
- Easy to use

**SPECIFIC WEIGHT**

approx. 1.00 kg/l

**DILUTION IN WATER BY WEIGHT**

Dilution from 60% to 80%

**YIELD**

20–25m²/l in one coat

**APPLICATION**

By brush and float or sponge glove

**SUPPLY**

5 and 1 litre packs (neutral base)

**COLOURS**

DESIDERI VELO chart

RICORDI CALCE A PENNELLO is a mineral decorative paint giving a smooth, flat finish, made from selected, superior pure natural lime paste. It is used as a mineral decorative finish for interiors and exteriors, ideal for restoration work on historically and artistically important buildings, creating decorations with a shaded and antique appearance. The use of mineral-based raw materials ensures a finish with high breathability, while the moisture regulating properties of natural lime mean RICORDI CALCE A PENNELLO improves well-being and creates a comfortable indoor environment.

- Mineral finish
- Shaded and antique appearance
- Very high breathability
- For interiors and exteriors
- Easy to use

**SPECIFIC WEIGHT**

approx. 1.30 kg/l

**DILUTION IN WATER BY WEIGHT**

First coat up to 30%. Second up to 20%.

**YIELD**

4–5 m²/l for finished work, 2 coats

**APPLICATION**

By brush

**SUPPLY**

14, 4 and 1 litre packs
The performance of an External Thermal Insulation Composite System in terms of protection and energy efficiency not only depends on the quality of the materials used and the technology; application techniques also play an essential role in ensuring optimum system performance.

We have therefore decided to produce a technical manual with a complete overview of all the procedures adopted when applying the FASSATHERM® EXTERNAL THERMAL INSULATION COMPOSITE SYSTEM; accurate descriptions of the individual steps and methods, details of the components, equipment and accessories to be used, but also information on unforeseen problems that may occur during application, with an explanation of how to solve these.

Simple language and accurate information, complete with images for clearer understanding.

An important tool for site personnel, as well as for designers and customers: detailed knowledge of the techniques helps understand the results that can be obtained and how to improve them.

The application manual can be downloaded from www.fassabortolo.com in the “information material” section.
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