

waterproofing systems
bitumen polymer
single-ply
single-layer

DERMABIT®

the reliable one



About Dermabit® Single-ply and its reliability

Dermabit® is the reference brand of Casali's high end bitumen-polymer membrane line, developed for professional applications that require maximum performance and durability.

Dermabit® is above all the bitumen-polymer membrane used by installers who want to guarantee the reliability of their waterproofing applications, secure in the knowledge that they are relying on many years of successful experience with both small and important projects.

The Dermabit® range of membranes has always been synonymous of undisputed quality and over the years has successfully passed the most difficult tests such as those required by the prestigious BBA(1) certification (British Board of Agreement for Anglo-Saxon areas), Branz(2) approval (the very strict New Zealand evaluation board) and the approval of the German FLL for root stop applications (as additive to the mixture), earning with full marks the Casali Enduring Quality (EQ) certificate that guarantees the more than thirty years of tested life of these membranes.

Dermabit® membranes are exported worldwide and are produced with a formula perfected over the years by Casali's Research & Development Laboratory, using only the finest raw materials such as select distilled bitumen, high grammage continuous filament polyester TNT support stabilised with glass strands and high performance APAO polymers (Amorphous Poly-Alpha Olefins). These polymers, that are specifically polymerised for the production of very high quality elasto-plastomer membranes, make the Dermabit® membrane compound extremely elastic, highly adhesive, very stable at high temperatures, flexible at low temperatures and very resistant to thermal ageing and ultraviolet rays. Cutting-edge technologies based on double reinforcement impregnation are used in the production process.

If applied in strict compliance with Casali's specifications, Dermabit® membranes are covered by a prestigious warranty of more than 10 years. The production technology, where the same com-

pound is used to soak, protect and cover the reinforcement, guarantees that Dermabit® membranes have a perfectly uniform thickness that ensures uniform protection of the waterproofing elements, making these membranes ideal for single-layer applications in accordance with EN 137097 regulation of the European Directive on CE polymer bitumen membranes markings.

SINGLE-LAYER APPLICATION

Single-layer systems applied in compliance with Casali's strict specifications are eligible for inclusion in the extension programme of the standard warranty which was developed to ensure major security to clients who do not want to take risks. Knowing as it does that the efficiency of a single-layer system depends on the efficiency of each and every laying stage, from design to final testing, Casali has developed a complete and structured system where nothing is left to chance.

The DERMABIT T/FF project comes from the Dermabit® experience; after many years of meticulous research work by the Casali labs, the innovative SINGLE-PLY line for single-layer systems with its two families of membranes was developed:

- Dermabit® T for conventional torch-on applications;
- Dermabit® FF for flame-free hot air applications: Dermabit® FF Gluty for total bonding with glue, Dermabit® FF Fixus for semi-independent laying secured by mechanical fixing and Dermabit® FF Liber for loose laid applications under heavy ballasting.

This brochure gives a general description of the membrane characteristics, the advantages of each membrane and instructions for their use. Technical data sheets with more detailed information are available from Casali's Technical Department on request.

The Dermabit® single-layer system in particular ensures added value due to fact that it is eco-compatible and clearly recognisable in design choices.

SISTEMI IMPERMEABILIZZANTI
BITUME POLIMERO
ALTAMENTE AVANZATI
SISTEMI IMPERMEABILIZZANTI
BITUME POLIMERO
ALTAMENTE AVANZATI

SINGLE-PLY
monostrato





classiko²⁵⁰ DERMABIT T

single-ply



Torch on application

Dermabit® Classiko is an evolution of certified Dermabit® membranes for multi-layer applications and expresses the essence of Casali's tradition, reliability and technological innovation in single-layer torch on applications for which this product was specifically developed; special reinforcement and excellent dimensional stability make this product the ideal choice for traditional applications.

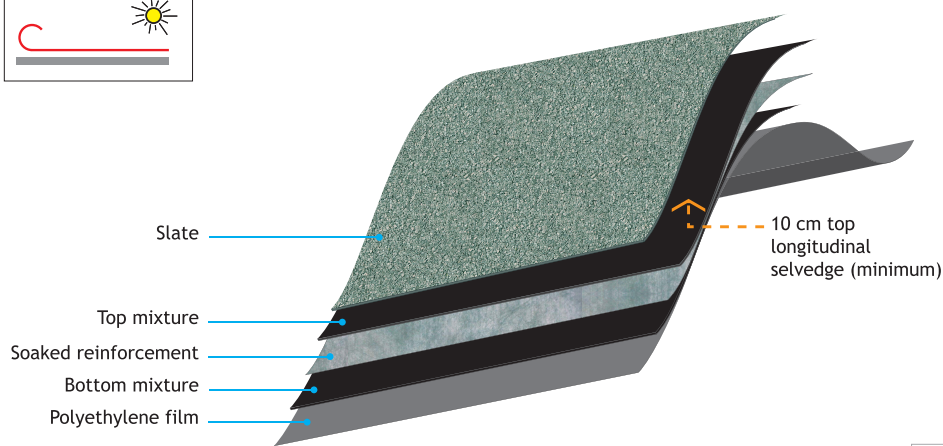
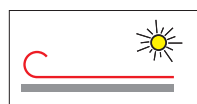
Dermabit® Classiko membranes consists of the following:

- Polyethylene film: torch on polyethylene coupled to the molten compound during production;

materials of select high quality guarantees an excellent long-term thermal service range (-25°C /+150°C) without losing any of the membrane's mechanical and water sealing properties.

- Slate: these are calibrated slate chips which are spread uniformly over the top bituminous mass during production. The slate chips protect the underlying compound from UV rays.

- Top longitudinal selvedge: this is a width of at least 10 cm of the sheet on which the protection coating is not applied. By overlapping the selvedge correctly, the bitumen compound surfaces are in



- Bituminous mass with reinforcement: this is a highly resistant and dimensionally stable layer of bitumen and reinforcement which is the waterproofing mass of the geomembrane. The use of raw

contact. The fusion of the two contact layers ensures perfect adhesion of the compound and the mechanical and waterproof seal of the joints.

- The product is available, on request, with flexibility at low temperatures of -30°C and -20°C, and an ageing differential of 5°C

- Very thick, ideal for torch-on single-layer applications

- Total adhesion

- Optimized weight

- Torch on application

- Wide and constant thermal service range over the years

- Power saving

- Reduced transport costs

- Safe laying

- Fast and easy to install, including the top welds

- Efficient and reliable technique for applying finishes

- Ten-year warranty, with extension option if terms and conditions provided by "Casali Warranty" are fulfilled

- Authorised installer certification

- Maintenance programme

Please read the technical manual to ensure correct laying.



Apply Dermabit® T Classiko with a standard propane torch ①. Compliance with the design rules, choice of the layer system, installation method and the routine maintenance indicated by Casali will allow the user to request extension of the ten-year warranty.



The technical data provided refer to the average results of tests carried out on products and may be modified by CASALI S.p.A. without prior notice. The values and tolerances comply with UNI EN 13707, UNI EN 13969 and UNI EN 14695 regulations and UEAtc Directives. The standard warranty covering specific characteristics of different types of membranes does not include appearance and finish which may vary according to the combined effect of different environmental factors. Manufacture declines all and any liability in the case of improper use of the materials indicated herein. For more information please contact Casali's Technical Office on 071 9162095. August 2013 edition



gluty₂₅₀

DERMABIT FF

single-ply



-25 °C

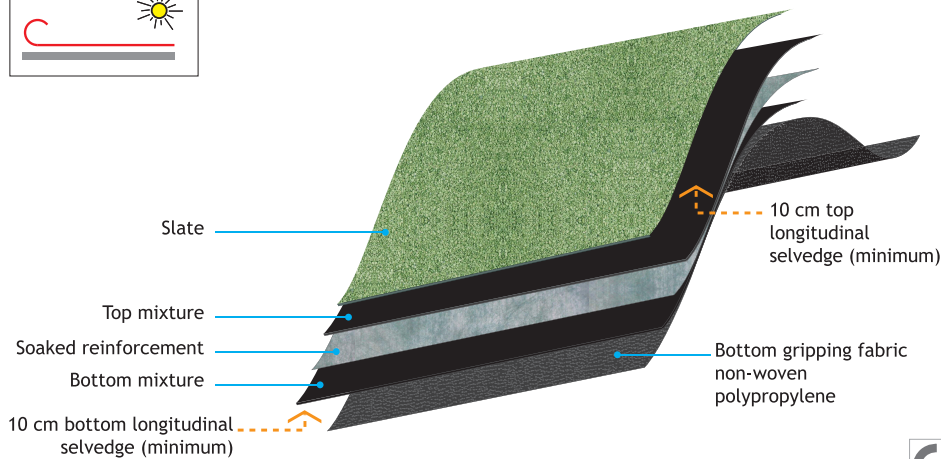
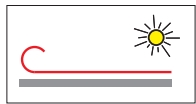


Total adhesion by bonding

The single-layer system Dermabit® FF Gluty was developed from Casali's professional Dermabit® membranes and is a technological evolution of Casali's historical expertise and quality. Dermabit® FF Gluty is formulated for full bonding flame-free application on decks of different kinds, and features a special reinforcement that guarantees high dimensional stability and a unique thermal service range. To guarantee the system's water sealing properties, selvages are welded with hot air and total adherence is ensured with a glue applied over the entire surface on which the single-layer membrane is laid. Dermabit® FF Gluty membrane consists of the fol-

lowing: a highly resistant and dimensionally stable bitumen and polyester reinforcement layer which is the waterproofing mass of the geomembrane. The use of materials of select high quality guarantee the long-term life of the membrane without losing any of its mechanical and water sealing properties.

- Slate: these are calibrated slate chips that are spread uniformly on the top bituminous mass during production. The slate chips protect the underlying compound from UV rays.
- Top/bottom longitudinal selvedge: this is a width of at least 10 cm of the sheet on which the geo-



lowing:

- Bottom gripping fabric: this is an 80 gram per sq.m. non-woven polyester geotextile that is coupled to the molten compound during production; the glue applied to the surface penetrates into the fibres ensuring that the membrane adheres to the underlying layer.
- Bituminous mass with reinforcement: this is a hi-

ghly resistant and dimensionally stable bitumen and polyester reinforcement layer which is the waterproofing mass of the geomembrane. The use of materials of select high quality guarantee the long-term life of the membrane without losing any of its mechanical and water sealing properties. By overlapping the two selvages correctly, only the bitumen compound surfaces are in contact. The fusion of the two contact layers ensures the perfect mechanical and waterproof seal of the joints. This solution is necessary because when welding with hot air, the two surfaces to bond are not visible, so that it is impossible to check if eventual residues of other materials (as occurs with torching) create gaps in the adhesion.

- The product is available, on request, with flexibility at low temperatures of -30 °C and -20 °C, and an ageing differential of 5 °C
- Very thick, ideal for single-layer applications
- Hot air laying means lower safety and insurance costs
- Total adhesion
- Hot air welding
- Optimized weight
- Power saving
- Reduced transport costs
- Safe laying
- Fast and easy to install, including the top welds
- Efficient and reliable technique for applying finishes
- Original thickness does not alter after laying
- Ten-year warranty, with extension option if terms and conditions provided by "Casali Warranty" are fulfilled
- Authorised installer certification
- Maintenance programme

Please read the technical manual to ensure correct laying.



Dermabit® FF Gluty is fully bonded on the deck with flame-free laying technique. The membrane is fixed with special adhesive and/or bitumen glue ④, and joints are welded with hot air ②. The system must comply with: the layer design approved by Casali, technical application specifications and controls and a routine maintenance programme as essential conditions to request eligibility for the extension programme of the ten-year warranty. The system includes complementary and additional layers.



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fixus²⁵⁰ DERMABIT FF

single-ply



-25 °C



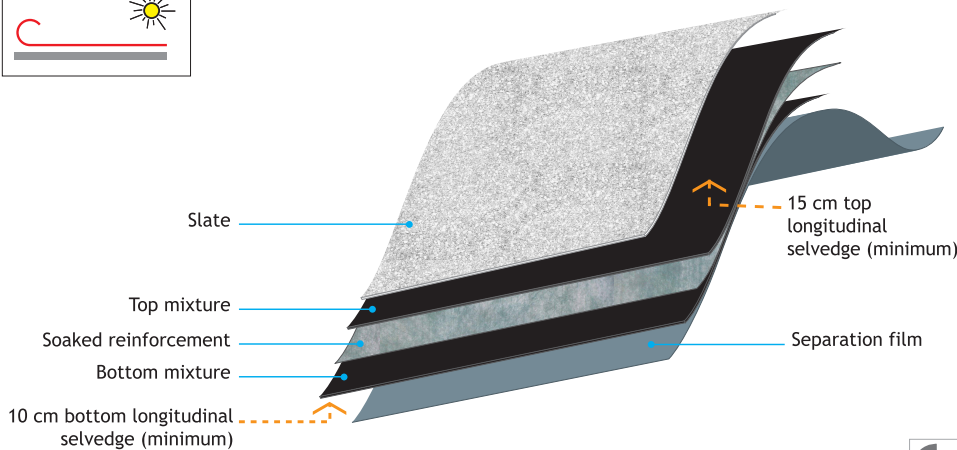
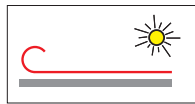
Semi-independent laying system with mechanical fixing means

The single-layer system Dermabit® FF Fixus was developed from Casali's professional Dermabit® membranes and is a technological evolution of Casali's historical expertise and quality. Dermabit® FF Fixus is formulated both for new applications and resurfacing. This system is designed for semi-independent laying on different types of decks, provided the laying surface is suitable for nailing in the membrane which ensures that the surface-laid single-layer system is resistant to wind action; Dermabit® FF Fixus also features special reinforcement and ensures high dimensional stability and a unique thermal service range. Dermabit® FF Fixus membrane consists of the following:

sing any of its mechanical and water sealing properties.

- Slate: these are calibrated slate chips that are spread uniformly on the top bituminous mass during production. The slate chips protect the underlying compound from UV rays.
- Top/bottom longitudinal selvedge: this is a width of at least 10 cm. at the bottom and 15 cm. at the top of the sheet on which the separation layer and protection coating are not applied. By overlapping the two selvedges correctly, only the bitumen compound surfaces are in contact.

- The product is available, on request, with flexibility at low temperatures of -30 °C and -20 °C, and an ageing differential of 5 °C
- Very thick, ideal for single-layer applications
- Hot air laying means lower safety and insurance costs
- Partial fixing to optimise distribution of stress caused by deck movements
- Fixing without chemicals or solvents
- Hot air welding
- Optimized weight
- Power saving
- Reduced transport costs
- Safe laying
- Fast and easy to install, including the top welds
- May be installed in weather conditions that make installation impossible with other systems
- Efficient and reliable technique for applying finishes
- Original thickness does not alter after laying
- Ten-year warranty, with extension option if terms and conditions provided by "Casali Warranty" are fulfilled
- Authorised installer certification
- Maintenance programme



- Bottom separation film: this is a centesimal polyester film which prevents the geomembrane filaments from sticking, from packaging through to the time the membrane is laid on the deck.
- Bituminous mass with reinforcement: this is a highly resistant and dimensionally stable bitumen and polyester reinforcement layer which is the waterproofing mass of the geomembrane. The use of materials of select high quality guarantee the long-term life of the membrane without lo-

The fusion of the two contact layers ensures the perfect mechanical and waterproof seal of the joints. This solution is necessary because when welding with hot air, the two surfaces that are bonded are not visible, so that it is impossible to check if eventual residues of other materials (as occurs with torching) create gaps in the adhesion. The top selvedge is wider (15 cm) in order to insert the division plates for mechanical fixing, leaving a space of at least 10 cm to ensure correct hot air welding.



Dermabit® FF Fixus is partially bonded on the deck with flame-free technique, by means of secure mechanical fixing ③, and hot air welding of the joints ②; the mechanical stress of the deck causes less deck fatigue. The system must comply with: a layer design approved by Casali, technical application specifications and controls and a routine maintenance programme as essential conditions to request eligibility for the extension programme of the ten-year warranty. The system includes complementary and additional layers.



Please read the technical manual to ensure correct laying.

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liber₂₅₀ DERMABIT FF

single-ply



-25 °C



Loose laid under heavy ballasting

The single-layer system Dermabit® FF Liber was developed from Casali's professional Dermabit® membranes and is a technological evolution of Casali's historical expertise and quality. Liber is designed for loose laying on decks of different kinds and requires standard ballasting on the single-layer. Dermabit® FF Liber features special reinforcement and guarantees high dimensional stability and a unique thermal service range.

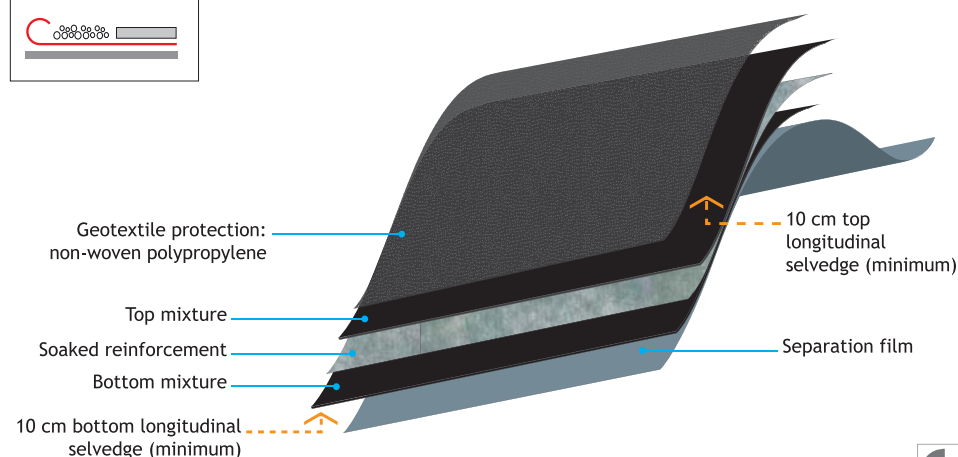
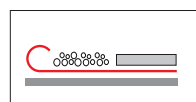
Dermabit® FF Liber membranes consist of the following:

- Bottom separation fabric: this is a centesimal poly-

terproofing mass of the geomembrane. The use of materials of select high quality guarantee the long-term life of the membrane without losing any of its mechanical and water sealing properties.

- Protection geotextile: a polyester fabric layer which not only protects the membrane from mechanical damage during installation of the fixed or mobile ballast but also separates (in the case of sandwich and inverted roof applications) the waterproofing and insulating layers.

- Top/bottom longitudinal selvedge: this is a width of at least 10 cm of the sheet on which the sepa-



lyester film which not only prevents the geomembrane filaments from sticking, from packaging through to the time the membrane is laid on the deck, but also separates (in the case of hot roof applications) the waterproofing and insulating layers.

- Bituminous mass with reinforcement: this is a highly resistant and dimensionally stable bitumen and polyester reinforcement layer which is the wa-

ration layer and protection coating are not applied. By overlapping the two selvedges correctly, only the bitumen compound surfaces are in contact. The fusion of the two contact layers ensures the perfect mechanical and waterproof seal of the joints. This solution is necessary because when welding with hot air, the two surfaces that bonded are not visible, so that it is impossible to check if eventual residues of other materials (as occurs with torching) create gaps in the adhesion.

- The product is available, on request, with flexibility at low temperatures of -30 °C and -20 °C, and an ageing differential of 5 °C

- Very thick, ideal for single-layer applications

- Hot air laying means lower safety and insurance costs

- Loose laid to ensure better distribution of structural stress

- Fixing without chemicals or solvents

- Hot air welding

- Power saving

- Reduced transport costs

- Safe laying

- Fast and easy to install, including the top welds

- May be installed in weather conditions that make installation impossible with other systems

- Efficient and reliable technique for applying finishes

- Original thickness does not alter after laying

- Ten-year warranty, with extension option if terms and conditions provided by "Casali Warranty" are fulfilled

- Authorised installer certification

- Maintenance programme

Please read the technical manual to ensure correct laying.

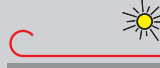
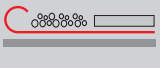


Dermabit® FF Liber is loose laid on the deck with flame-free technique, while joints are hot air welded ② to ensure that the mechanical stress of the deck does not cause deck fatigue. The ballast layer ensures protection against UV rays and wind action. The system must comply with: a layer design approved by Casali, technical application specifications and controls and a routine maintenance programme as essential conditions to request eligibility for the extension programme of the ten-year warranty. The system includes complementary and additional layers.



②

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Compliance Specifications		DERMABIT® FF Classiko	DERMABIT® FF Gluty	DERMABIT® FF Fixus	DERMABIT® FF Liber
 UNI EN 13707 Regulation for surface-mounted single-layer applications	COLD ROOF WITH SURFACE-MOUNTED MEMBRANE	Torch on application	Total bonding	Mechanical fixing	⊗
	HOT ROOF WITH SURFACE-MOUNTED MEMBRANE	Torch on application	Total bonding	Mechanical fixing	⊗
 UNI EN 13707 Regulation for single-layer applications under heavy protection	COLD ROOF WITH BALLASTED MEMBRANE	⊗	⊗	⊗	Loose laid
	HOT ROOF WITH BALLASTED MEMBRANE	⊗	⊗	⊗	Loose laid
	INVERTED ROOF	⊗	⊗	⊗	Loose laid
	DUO ROOF	⊗	⊗	⊗	Loose laid

⊗: Use does not comply with specifications

Slate finish colours:



natural

Other colours are available on request



white

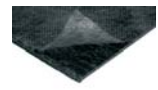


cool roof white



black

Finish



TEX- non-woven polypropylene

Dermabit® Single-Ply system

Complete system supply

Dermabit® T Classiko: supplied in rolls on pallets
Dermabit® FF Gluty: supplied in rolls on pallets
Dermabit® FF Fixus: supplied in rolls on pallets
Dermabit® FF Liber: supplied in rolls on pallets
Roof drain pipe: rainwater runoff and drainage
Condensation vent: ventilation or breather vents
Prefabricated Inner corner: sealing for inner corners
Prefabricated Outer corner: sealing for outer corners
Horizontal drain pipe: rainwater runoff and drainage

Monocomponent polyurethane adhesive
Water-based bituminous adhesive
Solvent-based bituminous adhesive
ELECTRON hot air welding machine
BITUMAT 380 V automatic welding machine
Nozzle
85 mm silicone roller
40 mm silicone roller
20 mm silicone roller

Tools and accessories



Roof vent



Inner corner



Horizontal drain pipe



Roof drain pipe



Rollers



Nozzle



Outer corner



Hand operated

For further informations on tools and accessories please request the Casali depliant "Single-ply System: Tools and Accesories" or contact the Casali Technical Office.

Certification for authorised layers

- Practical installation courses
- Refresher courses
- Attendance certificates
- Worksite inspections
- Laying manuals
- Design manuals
- Introduction course to UNI 11333 certification

Casali Technical Assistance

- Layer design
- Finish design
- Preparation of specifications
- Preliminary inspections
- Inspections during laying
- Inspections during testing
- Cost analysis
- Wind action analysis
- Product data sheets
- Assistance at the worksite
- Laying manual
- Maintenance contracts and protocols
- Technical manual for single-layer applications
- Theoretical training courses

Key to symbols



If you do not find an answer to your doubts or requirements in this brochure or the laying manual, please contact Casali's Technical Office.
Failure to comply with the instructions provided by the company documents published will result in immediate cancellation of the warranty.



In eighty Countries all over the world including Italy, Casali is a benchmark brand synonymous of quality, professionalism and technical assistance in the building trade.

Casali was founded in 1936 as a manufacturer of products for the protection of buildings against the action of water and

since then has worked to find the most innovative and efficient solutions, taking into account the most up-to-date developments in building techniques and the need to protect the natural environment as a precious resource for man. In our very long history, we have acquired an experience which is unique, placing it at the service of our customers with reliable products and systems, to resolve even the most exacting building problems, above all those related to waterproofing, and later with products to ensure sound comfort and high performance sports surfaces.

Casali is organised in four divisions (Membranes, Synthetics, Synthetic Geomembranes and Acoustic) and is today a customer-oriented company that relies on its highly specialised products. Our historical Membrane Division includes: the modern line of modified bitumen-based (APP-SBS) prefabricated membranes developed especially for roofing and large structures, the line for special applications (such as root-stop, fire retardant, radon/vapour barrier membranes and self-protected metal lamina membranes, etc.) and the waterproofing thermal insulation line. The Synthetics Division which was introduced in 1992 includes the line of liquid waterproofing products, the line of asbestos consolidating products and resin lines for industrial and sports floorings. Finally, the Synthetic Geomembrane Division includes the innovative line of eco-compatible TPO polyolefin waterproofing membranes for the civil building trade and large structures while the Acoustic Division includes the line of sound insulating products against airborne and footstep noise to ensure acoustic comfort in buildings. The world of Casali products guarantees the best technology and high quality raw materials, all subject to strict controls.

Since 1996 Casali's production process has been certified by UNI EN ISO 9001 and the company is certified for application of the CE mark. Casali has also been awarded numerous international and national certifications in the different Countries in which it operates - all attesting the exceptional performance and durability of its products, as in the case of Enduring Quality waterproofing membranes that have proved to be efficient after 30 years from installation.

In Italy, Casali's production factories cover a surface area of 23.000 sq.m. (9.500 sq.m. under roofing) and are strategically located between Ancona airport, Falconara Marittima railway station and the seaport of Ancona.

Cutting-edge technology, innovative plants and constant attention to the specific requirements of our customers are the cornerstones of our philosophy that places people (with their human and professional skills) at the centre of our work, allowing us achieve a real synthesis between research, projects, products and services to guarantee just the right solution to traditional and new problems in the continuously evolving building trade industry all over the world.



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