

TECNOFLEX



Nature of product

Bitumen-polymer elastomer waterproofing membranes (SBS). The TECNOFLEX prefabricated membranes are produced in the black version, TECNOFLEX NT, 4 mm thick, and TECNOFLEX ARD, self-protected with slate flakes, mass per unit area 4.5 kg/m² (ARD/S version) or 4 mm thick + slate (ARD/HS version). They are provided with a non-woven polyester reinforcement of continuous filament; both sides of the black membranes are coated with the thermo-fusible film TERMOTENE, in the slate ones, only the lower one.

The specific formulation of the bitumen-polymer elastomer compound guarantees good mechanical performance, flexibility at low temperatures (-20°C), resistance to fatigue and breakage elongation of the compound above 1000%. The membranes of the TECNOFLEX series are produced in rolls, taped and accompanied by a Quality Control Certificate. They comply with the requirements for CE marking where required. They do not contain asbestos, tar or other dangerous substances.

Intended use

TECNOFLEX membranes are suitable for the creation of waterproofing works of various types. In particular, TECNOFLEX membranes are specifically used in harsh climates or during cold seasons. Moreover, compared to the use on roofs and in foundations, the different versions can be used with reference to the following diagram ⁽¹⁾.

For clarification on the systems that can be created, consult the Technical Services of IMPER ITALIA srl.

| PRODUCTS | FIELDS OF USE ⁽¹⁾ | | | | | | |
|---------------------------------------|------------------------------|-------|----------------|-----------------------------|-----------|----------------------------|--------------------------------|
| | Roofing (EN 13707) | | | | | | |
| | Exposed | | Roof gardens | Under heavy-duty protection | | Under-tile (EN 13859-1) | Steam control (EN 13970) |
| Single-ply | Multi-ply | | Root-resistant | Single-ply | Multi-ply | | |
| | Upper | Lower | | | | | |
| TECNOFLEX NT 4 | | • | | • | • | | • |
| TECNOFLEX ARD/S 4.5 kg/m ² | • | | | | | • | |
| TECNOFLEX ARD/HS 4 mm + slates | • | | | | | • | |

(1) In compliance with the applicable AISPEC/SITEB-MBP Guidelines.

Application procedure

TECNOFLEX membranes are flame-installed before priming with a suitable primer or, only for versions with polyester reinforcement, with mechanical fixing. The application methods are a determining factor capable of characterising the performance of the waterproof covering itself. In general terms, the TECNOFLEX Series membranes must be applied using a propane gas flame. Particular care must be given to performing of sealing between the sheets always laid with staggered joints; the lateral joints must be installed with overlap of 8 ÷ 10 cm and the end joints with overlapping of 12 ÷ 15 cm. The bitumen-polymer elastomer compounds have poor resistance to U.V. Therefore, when heavy protection is not provided, the exposed membrane must be of the self-protected type. For correct and detailed documentation, as well as to identify the most effective intervention solutions in all circumstances, we recommend consulting the Technical Services of IMPER ITALIA srl which are in any case available for the consultation of particular problems as well as to provide all the assistance necessary for the best use of these materials.

| Specifications | EN Standards | Unit of Measure | Tolerances ⁽¹⁾ | TECNOFLEX | | |
|--|--------------|-------------------|---------------------------|--------------------|--------------------|-----------------------|
| | | | | NT4 | ARD/S | ARD/HS ⁽²⁾ |
| Roll dimensions | 1848-1 | m | ≥ | 10 x 1 | | 8 x 1 |
| Thickness | 1849-1 | mm | ±5% | 4 | - | 4 + slates |
| Mass per unit area | 1849-1 | kg/m ² | ±10% | - | 4.5 | - |
| Watertightness | 1928-B | kPa | ≥ | | 60 | |
| Cold flexibility | 1109 | °C | ≤ | | -20 | |
| Flow resistance at elevated temperature | 1110 | °C | ≥ | | +100 | |
| L/T tensile strength | 12311-1 | N/5cm | ±20% | | 650 / 500 | |
| L/T tensile elongation | 12311-1 | % | ±15 ⁽³⁾ | | 40 / 40 | |
| L/T dimensional stability | 1107-1 | % | ≤ | | 0.5 | |
| Static puncture | 12730 | kg | ≥ | | NDP ⁽⁴⁾ | |
| Dynamic puncture | 12691-B | mm | ≥ | | NDP ⁽⁴⁾ | |
| L/T tear resistance | 12310-1 | N | ±30% | | 150 / 160 | |
| Joint peel resistance | 12316-1 | N/5cm | ±20 N | | - | |
| Joint cut resistance | 12317-1 | N/5cm | ±20% | | - | |
| Durability after aging: | | | | | | |
| • Cold flexibility | 1296-1109 | °C | +15°C | | -5 | |
| • Flow resistance at elevated temperature | 1296-1110 | °C | -10°C | | +100 | |
| • UV Ageing | 1297 | - | - | NDP ⁽⁴⁾ | Supera | |
| • Watertightness | 1296-1928 | kPa | ≥ | | 60 | |
| • Chemical resistance | - | - | - | | NDP ⁽⁴⁾ | |
| • L/T tensile strength | 12311-1 | N/5cm | ±20% | | 550 / 400 | |
| • L/T tensile elongation | 12311-1 | % | ±15 ⁽³⁾ | | 35 / 35 | |
| Steam permeability | 1931 | μ | ≥ | | 20,000 | |
| Root resistance | 13948 | | - | | NDP ⁽⁴⁾ | |
| External fire behaviour | 13501-5 | EC ⁽⁵⁾ | - | | Froof | |
| Fire reaction | 13501-1 | EC ⁽⁵⁾ | - | | F | |

Notes: (1) In compliance with the applicable AISPECSITEB-MBP Guidelines.

(3) ±2 for Glass Mat reinforcements.

(2) Upper finish in slate flakes standard colour Natural grey.

(4) Characteristic not determined because it is not relevant for use.

Other colours upon request Red, Green, White, Whire Reflecta (SRI = 81%).

(5) Euroclass.

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Considerando le diverse situazioni d'impiego dei prodotti e l'intervento di fattori da noi non dipendenti (supporti, condizioni di esercizio, in osservanza delle prescrizioni, ecc.), non è possibile alla IMPER ITALIA srl assumere responsabilità in merito ai risultati ottenuti. Il progresso unito alla costante ricerca dei massimi livelli prestazionali possono apportare - nel tempo - modificazioni alle informazioni contenute in questo stampato, senza che la IMPER ITALIA srl debba darne preavviso a tutti gli interessati.

