

Technical Data Sheet

FORCELINE 4 FLAME FREE Capsheet

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| Description | Forceline 4 Flame Free is a polyester reinforced SBS elastomeric modified bitumen waterproofing membrane. The membrane has a self protected charcoal mineral chipping finish and a self adhesive under surface. Minimum selvedge width is 8cm. |
| Use | Capsheet in FORCELINE NEO flame free warm roof, self adhesive, multi layer bitumen membrane roof waterproofing system. |
| Application method | <p>Fully bonded, with fully sealed joints, by flame free self adhesive hot air welding techniques, to form a continuous watertight layer.</p> <p>The Forceline Neo-Bitumen flame free membrane must be laid loose and positioned prior to removal of the protective silicone release film from the underside of roll.</p> <p>Simultaneously unroll the membrane and remove the protective silicone release film exposing the Neo-Bitumen self adhesive surface and ensure full adhesion to the membrane/prepared surface below, using hot air activation/flame-free tooling as necessary.</p> <p>A heavy metal roller should be used to remove any air bubbles and ensure full bonding is achieved.</p> <p>Lap joints are secured using flame free self adhesive hot air tooling and a 2mm bead of bitumen should be visible along the selvedge.</p> <p>At head laps mineral granules should be heated and removed using flame free hot air tooling techniques ensuring a black to black bond is achieved and a 2mm bead of bitumen is visible along the head lap.</p> |
| Storage | Rolls to be stored upright and away from heat. |

Composition (indicative)

| | | |
|------------------------------------------|---------------------------------------------------|-----|
| Reinforcement (g/m²) : | Stabilised polyester reinforced with glass-fibre | 120 |
| Binder : | SBS elastomer (self adhesive on under surface) | |
| Surface finish : | Mineral chippings, with silicone film on selvedge | |
| Under surface finish : | Peel-off silicone film | |

| Characteristics | | Standard(BS) | Units | Values | Tolerance | |
|----------------------------------------------|-------------------------|---------------|---------|------------|--------------|-----|
| | | | | | Min | Max |
| Dimensions | Length | EN 1848-1 | m | 8 | -1% MLV | |
| | Width | | m | 1 | -1% MLV | |
| | Straightness | | - | 20mm x 10m | Pass | |
| Nominal roll weight | kg | | 40 | | | |
| | Thickness (selvedge) | | mm | 3.80 | ±0.2 | |
| Visible defects | | EN 1850-1 | - | None | | |
| Adhesion of granules | | EN 12039 | % | 30 max. | MDV | |
| Resistance to tearing (nail shank) | Longitudinal | EN 12310-1 | N | 130 | -30% | |
| | Cross direction | | | 130 | | |
| Tensile properties: maximum tensile strength | Longitudinal | EN 12311-1 | N/50 mm | 400 | ±20% | |
| | Cross direction | | | 300 | | |
| Tensile properties : elongation at break | Longitudinal | EN 12311-1 | % | 35 | -15 absolute | |
| | Cross direction | | | 35 | | |
| Flexibility at low temperature | | EN 1109 | °C | -25 | MLV | |
| Flow resistance at elevated temperature | New product | EN 1110 | °C | 100 | MLV | |
| | After ageing to EN 1296 | EN1296/EN1297 | | -15 | +15 | |
| Dimensional stability | Longitudinal | EN 1107-1 A | % | ±0.3 | MLV | |
| | Cross direction | | | | | |
| Shear resistance longitudinal/transversal | | EN 12317-1 | N/50mm | 300/200 | +20% | |
| Self Adhesion Properties | | ASTM D 1000 | N/10mm | 20 | -5 | |

| Characteristics | Standard(BS) | Units | Values | Tolerance | |
|--------------------|--------------|-------|--------|-----------|-----|
| | | | | Min | Max |
| Watertightness (A) | EN 1928 | kPa | 60 | MLV | |
| Reaction to fire | EN 13501-1 | - | PND | | |

PND=Performance not determined. MDV= Manufacturer Declared Value; MLV=Manufacturer Limiting Value.

The manufacturer reserves the right to modify, at any time, the characteristics of this product.