

Webertherm ES 151 (HeatShield)

Micro-ceramic heat insulation and waterproof coating



Webertherm ES 151 (HeatShield) is a water-based, micro-ceramic coating formulated with high-performance synthetic elastomers and advanced materials. It provides a flexible, elastomeric heat insulation and waterproof coating for roofs and exterior walls.

PRODUCT BENEFITS



ECO FRIENDLY



FAÇADE COATING



ELASTOMERIC & FLEXIBLE

USES

Webertherm ES 151 is used in exposed environments, including metal, concrete, concrete block, GRC, timber, brick, and most other surfaces. It can support pedestrian traffic and light traffic for maintenance activities. It can be applied over asphaltic concrete surfaces and bituminous roofing membranes (with mesh reinforcements) as a protective and insulating finish coat.

ADVANTAGES

- Flexible and elastomeric
- Tough and durable
- Easy to apply and clean up
- Trafficable

TECHNICAL DATA & PHYSICAL PROPERTIES

Alkali Resistance (SS 5 Part G2: 2003 (2013))	No visible change
Tensile Strength at Break (ASTM D412-16 (2021))	0.65 MPa
Elongation at Break (ASTM D412-16 (2021))	422%
Adhesion to Concrete (ASTM D7234-22)	0.71 MPa
Resistance to Water Penetration (DIN 1048-5: 1991 (Adopted))	No water penetration observed
Crack Bridging Ability (ASTM C836/C836M-18 (2022))	No crack observed
Water Vapour Transmission (ASTM E96/E96M: 22ae1)	0.95 g/h. m ²
Daylight Reflectance Index (ASTM E903-20, ASTM E971-11, CIE 130-1998)	0.914 (Total daylight reflectance) 0.913 (Diffuse daylight reflectance) 0.001 (Specular reflectance)
Efflorescence/Water Permeability (SS 500: 2015 Annex B)	No change in PH, no sweating, no blistering, no disintegration
Algae Resistance (SS 345: 2015 Annex A)	No algae growth
Solar Reflectance Index (ASTM E903-20, ASTM C1371-15 (2022), ASTM E1980-11 (2019))	0.91 (Emittance) 0.834 (Solar reflectance) 0.166 (Solar absorptance)

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TECHNICAL DATA & PHYSICAL PROPERTIES

Solar Reflectance Index

(ASTM E903-20, ASTM C1371-15 (2022), ASTM E1980-11 (2019))

Low-Wind	Med-Wind	High-Wind
105.5	105.0	104.7

Chemical Resistance

(BS EN ISO 2812-4 (2017))

Hydrochloric Acid	No Blistering, No Cracking, No Colour Change
Sulfuric Acid	
Nitric Acid	
Carbonic Acid	

Specifications are subject to change without notification. Results shown are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance will depend on installation methods and site conditions.

PROCEDURE & APPLICATION



Surface Preparation

All surfaces must be clean, sound, and free from any laitance, oil, grease, and any contaminants.



Application

For surfaces like old or new concrete, metal, or timber, use primer such as Weberprim ES 121 or Weberprim ES 122. Allow the primer to dry around 3-4 hours, before applying any coating over it. When applying Webertherm ES 151 over existing paints or coatings, it is recommended to conduct adhesion testing prior to overcoating. For dry and porous surfaces, lightly spray and moisten them with water before applying primer. To achieve the desired dry film thickness, it is recommended to apply three coats of Webertherm ES 151. The recoat interval is typically around 4 hours, but it may vary depending on the prevailing atmospheric and ambient conditions.

PERFORMANCE & CAPABILITY

Webertherm ES 151 significantly diminish heat transfer and retention, preventing heat penetration and conduction within the coated areas. The heat insulation performance remains unaffected even if the coating becomes dull or dirty or when coated over with other coatings. When applied on concrete or metal roofs, Webertherm ES 151 reduce exterior surface temperatures, thereby reducing the rate of heat transfer into the interior of buildings. The usage and associated costs of air conditioning are reduced due to the diminished heat gain.

CONSUMPTION

Approx. 3m² to 5m² per litre per coat. On porous surfaces, aim for a minimum of 400 microns DFT. Actual consumption on these surfaces may average 2-3 square metres per litre per coat.

STORAGE & PACKING

Webertherm ES 151 is available in 18 kg pail.

Shelf life of 24 months if unopened and kept in sheltered and dry conditions.

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PRECAUTIONS

When applying Webertherm ES 151 as a textured decorative finish on exterior walls, it is crucial to prevent any activities that may cause dust or airborne particles to settle on the finish coat while it is curing. Ensure that underlying membranes are fully mesh reinforced and assessed to be stable and firm before applying Webertherm ES 151. Failure to do so may result in hairline cracks in the finish coat. Recoating with a new layer helps with restoration.

CLEANING

All tools and equipment should be cleaned with water immediately after use. Remove cured material with a general-purpose solvent.

HEALTH & SAFETY

In case of contact with eyes, rinse immediately with plenty of water, and seek medical assistance. Please keep out of reach of children.

*Note: Because it is not possible to give specific instructions for the various site conditions or to control the applications, the information on this Technical Data Sheet is for general guidance only. Saint-Gobain reserves the rights to amend the contents of the data sheet at its sole discretion. (Apr'25)

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