

Shieldproof BR440

Rubberized Bitumen Emulsion and Waterproof Coating



MICSHIELD®

Description

Shieldproof BR440 is a cold-applied rubberized bitumen emulsion that provides a black flexible coating and works as a dampproof coating and barrier to protect structures from water penetration.

Uses

- General waterproofing for use on concrete (exposed or below ground), cement, roofing, and asphalt, as a water and moisture barrier.
- Provides protection against corrosion of pipes, structural steelwork and other metallic equipment.
- Protects roofs, foundations, basements, tunnels, bridges, and so on.
- Provides weatherproofing layer when used over exposed insulation, in conjunction with a lightweight non-woven glass fabric or saturated polyester mat or jute. Also used as a vapor barrier when applied on concrete surfaces below insulation.
- Used as a primer when diluted with an equal amount of water in a single coat to enhance adhesion between the substrate and waterproofing sheet membranes.

Characteristics / Advantages

- Easy to apply.
- Excellent protection against ingress.
- Resists chloride and sulfates attacks.
- Provides concrete protection below and above ground.
- Cold application by brush or roller.
- Versatile and suitable for various substrates.
- Flexible, durable, and UV resistant.

Standard Compliance

Shieldproof BR440 complies with ASTM D 1227 Class 1. It also complies with the concrete curing requirements of ASTM C309

Packaging

Shieldproof BR440 is supplied in 18 and 200-litre drums.

Safety Instructions

Shieldproof BR440 is a non-flammable material and may cause irritation to the skin or eyes. For further information, refer to the Material Safety Data Sheet.

Typical Properties

Color / Appearance	Dark brown liquid
Specific Gravity (@ 23°C)	0.95 ± 0.05
Drying Time	1 – 4 hours
Bond Strength (ASTM 4541)	1.45 MPa
Application Temperature	5 to 45 °C
Water Permeability (BS EN 12380-8)	0 mm
Heat test (100 ± 3)°C	No blistering or re-emulsification
Flexibility (0 ± 0.5) °C	No cracking or flaking
Resistance to water	No blistering or re-emulsification
Resistance to chemicals	Resistance to alcohol, most salt solutions and dilute acids, alkalis.
Resistance to bacteria & fungi	Resistant
VOC	Nil

Consumption

Approximately 0.25 - 0.30 L per m² per coat for 60 – 75 microns

dry film thickness.

Note: This coverage is theoretical and may vary due to site wastage and substrate porosity and texture.

Shelf Life and Storage

Shieldproof BR440 has a shelf life of 12 months when stored in its original unopened packing in cool and dry conditions, protected from direct sunlight, heat and moisture. Shelf life may reduce if the recommended storage conditions are not followed.



Application Instructions

1. Surface Preparation and Priming

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, loose coatings and surface treatments, etc.

Concrete substrates should be prepared mechanically using grinders or captive blast cleaning to remove cement laitance and achieve an open textured, fine gripping surface. All dust, loose and friable material must be completely removed from all surfaces preferably by brush or vacuum.

2. Mixing

Shieldproof BR440 should be stirred prior to use, to ensure a homogenous liquid.

3. Application

Shieldproof BR440 can be applied by roller or brush at the rate of 0.25 - 0.30 L/m². Allow the first coat to cure before applying the second coat for around 1 – 4 hours, full drying of the first coat depends on the relative humidity and the ambient temperature. To ease application, dampen the applicator before and during use.

The second coat should be applied at the same rate within the recoat window (overcoating time), perpendicular to the first coat to secure the membrane interlock and to provide an impervious barrier. Don't use if rain is expected or the temperature drops below 0 °C within 2 hours after finishing the application.

4. Cleaning

Tools should be cleaned immediately with clean water. Hardened material can be cleaned using **Shieldsolvent 75** or can be removed mechanically.

Limitations

- Do not apply the product if the ambient temperature is less than 5°C.
- Hot weather practices should be adopted during application and curing if the temperature is above 35°C. In hot conditions store the material in a cool environment prior to application.
- Protect from frost and rain until full curing.

Technical Support

Refer to contacting technical information, method statement or technical support team for any inquiry.

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