

BETTOSEAL HYBRID

One component, UV Resistant, Bitumen, Solvent and Isocyanate Free,
Hybrid Polymer Based, Waterproofing Material

MATERIAL DESCRIPTION

BETTOSEAL HYBRID is a hybrid polymer based, single component, solvent-free, elastic liquid membrane with crack bridging properties, applied on many surfaces for waterproofing and protection purposes.

TECHNICAL SPECIFICATIONS

COMPONENT PROPERTIES

Structure	Hybrid Polymer
Appearance / Color	Gray-White Viscous liquid
Density	1.44 gr/ml (ASTM D1875)
Viscosity	10000-20000 cps
Curing Speed	3mm/day
Full Curing	7 days
Surface Drying Time	1 hour
Waiting Between Floors	8 - 12 hours
Service Temperature	-20 to 80 °C
Shore A Hardness	30 (ISO 868)
Elongation at break	> 300% (DINS 53504)
Tensile Strength	1-1.5 Mpa (DIN 53504)
Water Absorption	0.01 kg/m ² .h 0.5 (EN1062-3)
Tensile Tear Adhesion Strength	>0.8 N/mm ² (EN 1542)
Abrasion Resistance	1105 mg TS 8103 EN ISO 5470-1

CHEMICAL RESISTANCE TABLE

Chemical Name	Durability	Chemical Name	Durability
Hydrochloric Acid 10%	-	Trichloroethylene	±
Sulfuric Acid 10%	±	Toluene	-
Sulfuric Acid 25%	±	Potassium Hydroxide 20%	+
Sulfuric Acid 50%	-	Potassium Chloride 25%	+
Nitric Acid	±	Ammonia 25%	+
Acetic Acid 5%	-	Hydrogen Peroxide 3	+
Phosphoric Acid 10%	-	Sodium Chloride 25%	+
Citric Acid 10%	-	Ferrous Sulphate 5%	±
Formic Acid 1%	-	Diesel	+
Ethanol	-	Unleaded Gasoline, 98 octane	±
Ethyl Acetate	-	Engine Oil	+

+ Durable

± Durable (color, gloss and hardness may vary.) Rarely in case of contact or splashing,

- Flimsy

Note: The above values are given for +23°C and 50% relative humidity. High temperatures shorten the time, low temperatures lengthen the time.

AREAS OF USE

- Indoor and outdoor, horizontal and vertical applications,
- Concrete, ceramics, wood, glass, polycarbonate sheets, GRP, metal, stone, marble, tile, brick, particleboard, aerated concrete,
- For waterproofing chimney connections, wall and floor joints, rain gutters,
- On balconies, terraces, roofs and roof gutters,
- At the joints of sandwich panels,
- Drinking water tanks and water pools,
- For repair purposes at joints of bituminous and slate membranes,
- In wet volume insulation,
- It is used for waterproofing on thermal insulation applications (PU FOAM, EPS, XPS etc.).

ADVANTAGES

- Single component, easy to apply, (brush, short pile roller, airless gun, notched trowel)
- Primerless application on dry and damp surfaces,
- Excellent adhesion, crack bridging and high elasticity,
- Water vapor permeable, UV resistant and paintable,
- Excellent weather resistance, freeze-thaw resistance,
- Resistant to chemicals see table
- Environmentally friendly.



SURFACE PREPARATION

BETTOSEAL HYBRID should be applied to concrete for at least 28 days and the concrete surface humidity should be 4-6%. All loose particles, oil and paint residues, cement grout should be removed. Problematic surfaces on the concrete must be pre-monitored. Residues, roughnesses and shiny screed on the concrete surface should be cleaned with tools such as sandblasting machine, diamond drum wiping machine etc. and the surface should be roughened and wiped. The entire surface should be cleaned of dust with an industrial vacuum cleaner. The surface should never be washed with water.

PRIMING

It can be applied to dry and damp surfaces without primer, Dusty surfaces should be primed with **BETTOPRIME PU 1K** or **BETTOPRIME PU 2K**.

To obtain a homogeneous primer mixture, the primer should be mixed with a low speed mixer for 3-4 minutes. In order to prevent the formation of air bubbles, it should not be mixed at high speed for a long time. The prepared primer mixture is applied to the surface with brush, roller or airless spraying machines. Consumption for single coat primer application is 200- 400 gr/m². Consumption may vary depending on surface permeability, weather conditions and application technique.

If necessary, a second coat of primer can be applied. Make sure that there is no material left in the components. A and B components should be used after mixing until homogenous (at least 3 minutes).

APPLICATION METHOD

BETTOSEAL HYBRID is ready for use. Do not add water or any solvent to dilute.

The product in its special aluminum packaging is stolen before use, then the packaging is cut open from the corner with scissors and poured onto the application surface and applied to the surface with a brush, short pile roller or notched trowel. Application is done in 2 coats. It is recommended to apply the coats with the application directions perpendicular to each other.

Large surfaces over 25-30 m² or areas with risk of cracking should be reinforced with geotextile fabric after the first coat application. 2nd layer application is made on geotextile fabric.

Waiting time between coats varies between 12-24 hours depending on temperature and humidity. Masking tape is used to ensure that the end points of the application surface are flat. The masking tape should be removed after maximum 10 minutes.

In applications to be coated with ceramic tiles, quartz sand of 1 to 1.5 kg/m² is sprinkled on the surface before the top coat membrane application dries in order to make the surface rough.

The finished product should be protected against rain and mechanical stress until it dries.

EXPENDITURE

BETTOSEAL HYBRID should be approximately 1.5 kg/m² (for 1mm) per coat.

CLEANING OF INSTRUMENTS

Tools and equipment used after application can be cleaned with cellulosic or polyurethane thinner.

PACKAGING

BETTOSEAL HYBRID, 2 7 kg aluminum packages in plastic buckets.

STORAGE CONDITIONS

It should be stored in its unopened original packaging, in a cool and dry environment at + 10 to + 25 degrees, protected from frost. For short-term storage, maximum 3 pallets should be stacked on top of each other and shipment should be made on a first-in, first-out system. For long term storage, pallets should not be stacked on top of each other.

SHELF LIFE

9 months from date of manufacture under appropriate storage conditions.

SECURITY MEASURES

During application, work clothes, protective gloves, goggles and masks should be worn in accordance with the Occupational Health and Safety Rules. Due to the irritating effects of uncured materials, the components should not come into contact with the skin and eyes, in case of contact, wash immediately with plenty of water and soap, and in case of ingestion, consult a doctor immediately. Food and beverage materials should not be brought into the application areas. Keep out of the reach of children.



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