Technical Data Sheet

esatec BS01

esatec BS01 is a two components polyurethane based binder designed for flooring and decorative wall coatings with natural fillers (e.g. quartz, marble etc.). Being an aliphatic product it does not yellow when exposed to sunlight.

Chemico-physical properties

Typical features of the film

Glossa 60°: 65 - 95 Gloss Unit Appearance: opalescent liquid (UNI-EN-ISO 2813) (GU)

Solid content: 41 ± 1.5 %

MFFT Bar < 5°C Specific weight: $1.029 \pm 0.02 \text{ g/ml}$ (not catalyzed film):

(ASTM D2354) pH (20°C): 7.5 - 8.5

Ford viscosity cup: **QUV Panel** 35 - 45 s

(Nr.4, 25°C) (ASTM G154)

1.4 % NEP **Cosolvent:** N-Ethyl-2-Pyrrolidone)

Indicative practical coverage: c.a 15 Kg/m² per cm of

* The coverage may vary depending on the roughness of support and method of application.

(not catalyzed film): 80 h (UVB light)

Main applications and dosages



Syntetic resin for flooring and internal and external decorative wall coatings with natural fillers (natural stones, marble and quartz):

(Esacol HS/30 and catalyst must be added in advance)



Application temperature: from 5 to 50°C

Pot Life: 5 - 8 h at 25°C; 50% RH

Drying time and foot traffic: 24 - 48 h at 23°C



Final setting time: 7 day at 23°C; 50% RH





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Application

Supports must be dried, fully cured (if brand new), smooth and free from oils, dust and other chemicals.

If a mechanical pretreatment is needed the evaluation of the most appropriate technique is recommended (abrasion or shot peening).

For very absorbent or brand new supports a pre-treatment with two or more coats of primer **esatec P1** is advisable, in order to improve the adhesion of the top coat and reduce the absorption of the substrate.

Mortar formulated with polyurethane resin **esatec BS01** is characterized by a very good workability and ease of application.

The binder **esatec BS01** is mixed with natural aggregates (e.g. marble, quartz and other natural stones with different sizes) within which **esacol HS/30** is dispersed (from 0,2 to 0,3% bwob). In this way it is possible to realize different cromatic effects with a wide range of geometric combinations.

The mixture has to be stirred for ca. 2 minutes at moderate speed with appropriate mechanical equipment (e.g. Helix drill or concrete mixer).

The aggregates/esatec BS01 ratio ranges from 4:1 to 3:2, depening on the type/size of fillers.

Before applying the mortar, catalyst **esatec AT5/N** must be added (from 1 to 3% of the whole formulation); in this way the mechanical strength and the chemical resistance of the final product strongly improve. The catalyst must be mixed for 2-3 minutes at moderate speed with appropriate mechanical equipment (e.g. Helix drill or concrete mixer).

Once the product is prepared it can be applied like a traditional mortar with trowels, floats etc.

In order to further increase the final mechanical resistance, one/two coats of polyurethane **esatec CA01** (gloss effect) or **CA05** (matte) can be applied: also in this case, the catalyst (either **esatec CL08** or **AT5/N**) has to be added.

The tools (trowels, brushes, rollers, blades, etc.) can be washed both in hot or cold soapy water or with diluent once the resin has set.





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Packaging and storage

esatec BS01 is available in drums and IBC.

The product must be protected from frost and stored in closed drums at a temperature between 5 and 45°C. If stored under these conditions the product keeps its properties for a period of 12 months from the date of production.

After a long period of storage, a slight separation of the product may occur, but this doesn't affect the performance of the product.

In order to ensure the homogeneity of the system it's suggested to mix the product before using.







