

GELCOAT® VUP 4750 BE

TYPE

Gelcoat based on isophthalic acid/standard glycol preaccelerated, thixotropic

APPLICATION

Gelcoat for brush application

SPECIAL PROPERTIES

very good air release, rapid curing, good color stability also in different layer thicknesses, fulfils the specification of Germanischer Lloyd and Lloyd's Register of Shipping

USE

due to its high degree of flexibility well suited to use in areas in which laminate is subjected to dynamic forces, e.g. for boats, building components, industrial moulded parts, watertanks

PRODUCT DATA

Determined per batch:

Non-Volatile Matter DIN 55671 non-volatile matter

[%] 65,5 - 69,5

(120 °C; 5 min; 0,8 g)

Thixotropic Strength (UP-Resins) VLN 236

dynamic viscosity 50

[mPa.s] 6400 - 7300

(23 °C; 5)

dynamic viscosity 1 [mPa.s] 158000 - 178000

(23 °C; 5)

Gel Time (UP-Resins) DIN 16945 / 6.3.1.2

gel time [min] 13 - 18

2 % MEKP(33%)

(20 °C)

Not continually determined:

Density (Liquids) VLN 067

density [g/cm³] 1,26

approx. (20 °C)

Flash Point DIN EN ISO 1523

flash point [°C] 34

approx.

CURING

Curing is possible at room temperature by addition of keton peroxide, e.g. MethylEthylKetonPeroxide. Do not catalyze at levels below 1 % or above 3 % as this may cause curing problems. Two percent is recommended. Take care that the water content of the chosen peroxide is as low as possible. The water content of the peroxide should be below 3 %.

PROCESSING

The Gelcoat has to be well homogenised in the original packing shortly before processing, either by stirring or by rolling the drums. The Gelcoat has to be applied with a flat brush with soft bristles and an unpainted handle. The Gelcoat should be applied only with an absolutely dry brush (it must not contain solvent any more).

Recommended gelcoat-quantity: $500 - 850 \text{ g/m}^2$ for a film thickness of 0.4 - 0.7 mm.

Two coats are recommended to ensure a homogenuous thickness. The first coat must be allowed to cure before application of the second. Observe that the gelcoat as well as the mould should have a temperature of at least 20 °C. As soon as the Gelcoat-layer is cured, laminate-build-up should be started. Sufficient curing is achieved when after dabbing with a finger no gelcoat sticks to the finger although the surface may be tacky (finger-test).

PROCESSING TIME

The processing time may be varied with a suitable choice of peroxide concentration.

HUE

By addition of Viapal color pastes it is possible to color the Gelcoat transparent or hiding.

For optimal appearance it is recommended to use only one batch per moulded part. Please blend and homogenise several batches if the use of only one batch is not possible.

STORAGE

At temperatures up to 25 $^{\circ}\text{C}$ storage stability packed in original containers amounts to at least 210 days.

The product should be stored under exclusion of direct sunlight in the original, undamaged and closed packaging in a dry and cool place. Geltime and curing time can change during progressive storage. Shelf live is reduced at higher storage temperatures.

DATA OF CURED BASIC RESIN

Not continually determined:

Hardness (BARCOL) DIN EN 59 Barcol-hardness 934-1

30-34

Tensile Test (Unreinforced Plastics) DIN EN ISO 527-2 tensile strength [MPa] 65 breaking elongation [%] 3,5

Not continually determined data do not constitute a quality description, but correspond to single values, determined on a random sample. Deviations caused by production are possible.

PRECAUTIONS

Please notice the information in the material saftey data sheet (MSDS).

ACCELERATOR

The Gelcoat contains Co-accelerator. Prolonged storage can reduce the effect of the accelerator. An addition of 0.5 - 1.0 % accelerator Co 1 may be necessary to restore the original potlife.

7.0/30.03.2017 (replaces 6.0/17.09.2013)