

Gelcoat VUP 4761 BE/9001

Technical Datasheet

TYPE

Gelcoat based on isophthalic acid/neopentylglycol preaccelerated, thixotropic

APPLICATION

Gelcoat for spray application

SPECIAL PROPERTIES

very good air release, rapid curing, good color stability also in different layer thicknesses, fulfills the specification of Germanischen Lloyd

USE

Gelcoat for UP-FRP moulded parts that have to resist water and chemicals even at elevated temperatures; e.g. boats, covers for sewage treatment plants, sanitary articles, swimming pools etc.

PRODUCT DATA

Determined per batch:

Non-Volatile Matter DIN 55671

non-volatile matter [%] 64 - 68 (120 °C; 5 min; 0,8 g)

Thixotropic Strength (UP-Resins) VLN 236

dynamic viscosity 50 [mPa.s] 1400 - 2030

(23 °C; 4)

dynamic viscosity 1 [mPa.s] 24400 - 35400

(23 °C; 4)

Gel Time (UP-Resins) DIN 16945 / 6.3.1.2

gel time [min] 9 - 15

2% MEKP(33%) (20 °C)

Not continually determined:

Density (Liquids) VLN 067

density [g/cm³] 1,23

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 should be applied in a thickness of 0,4 - 0,6 mm (about 600 - 700 g Gelcoat per m²) by gelcoat-spray-equipments or overhead spray gun (nozzle diameter 2 - 3 mm, spray pressure 1 - 3 bar, air quantity about 250 l/min.). Apply in several thin overlapping coats rather then a single thick coat. This will help avoid sagging and porosity. Make sure the air pressure is adjusted properly, and the spray gun and lines are free of solvent, water and oil. Observe that the gelcoat as well as the mould should have 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

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

The product should be stored under exclusion of direct sunlight in the original, undamaged and closed packaging in a dry and cool place. By storage up to 25 °C in darkness the storage stability of the original packed containers amounts to up to 6 months. Geltime and curing time can change during progressive storage. Shelf live is reduced at higher storage temperatures.

PRECAUTIONS

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

DATA OF CURED BASIC RESIN

Not continually determined:

Tensile Test (Unreinforced Plastics) DIN EN ISO 527-2

tensile strength [MPa] 61 breaking elongation [%] 5

Hardness (BARCOL) DIN EN 59

Barcol-hardness 934-1 30 - 34

Not continually determined data are not equal to a specification, but correspond to single values, determined on a random sample. Deviations caused by production are possible.

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.

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