

ISOPHTHALIC TOOLING GEL COAT

Fiberglass moulds are largely used in many applications and with different technologies within the composite industry.

The quality of any moulded part depends on the proper manufacture and surface finishing of the mould. Therefore the selection of a proper tooling gel coat it's extremely important and will affect both the mould's life span and its performances.

Our tooling isophthalic gel coat has the following features:

- high chemical resistance, in particular to styrene
- no porosity
- high gloss
- low shrinkage
- good mechanical properties
- excellent application properties

They are available for both brush or spray up application.

VERSIONS

spray up

brush

colored

Application guide

For a proper application we strongly recommend to check that the temperature of the gel coat, of the mould and in the workshop is between 18°C and 25°C. All our gel coats are normally supplied pre-accelerated and simply need to be mixed with standard MEKP 50% peroxide. The amount of peroxide should be between 1% and 2%. The wet film thickness, depending on the shape of the mould and on the application method, should roughly be between 0,6 and 0,7 mm, which it's normally 700-900 g/m² of gel coat. It is advisable to build up the required thickness not in just one coat, but in few crossed coats to avoid microporosity.

When applied with "airless" or similar equipment, we recommend the fine tuning of the machine (nozzle and pressure). If a further dilution is needed for the application, type and quantity of the diluent may vary according to specific needs. Please refer to our technical service for advice. We do not recommend the use of acetone, particularly in the brush version.

APPLICATIONS

mould construction

mould maintenance

Chemical and physical properties

| | method | unit | 224531P | 224531 | PACKING |
|-----------------------|--------------------------------|-------------------|------------------------------|-------------------------------|---|
| application | | | spray up | brush | pails Kg 25 drums Kg 250 |
| appearance | A 01* | visual | orange thixo | orange thixo | |
| solid content | C 08* | % | 61 ± 2 | 69 ± 2 | COLORS |
| specific weight | DIN 63217 | g/cm ³ | 1,1 ± 0,1 | 1,1 ± 0,1 | black orange green |
| Barcol | ASTM D 2583 | unit | => 45 | => 45 | |
| gel time | P 04* | minutes | 10 ± 2 | 10 ± 2 | |
| peak | P 04* | °C | 200 ± 10 | 190 ± 10 | SHELF LIFE |
| °C increase from 35°C | P 04* | °C/min | => 15 | => 15 | 3 months if properly stored in the original sealed pails, between 15° and 25°C, away from naked flames, heat sources and not exposed to direct sunlight |
| viscosity | rpm 2 rpm 20 ASTM D 2196 | mPa.s mPa.s | 25.000/35.000 4.000/5.000 | 40.000/40.000 8.000/10.000 | |
| thix index | ASTM D 2196 | ratio | => 6,5 | 5/6 | WARNINGS |

* **italbeit's** internal method

flammable product: keep it away from heat sources, sparkles and naked flames

do not eat, drink or smoke during application

avoid static charges

keep the workshop properly ventilated

note:

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