

## 1 CHARACTERISTICS

**GC 188** is a gel coat based on Isophthalic resin to use for quality applications.

- Pre-accelerated and thixotroped: for spray application.
- Freedom from drainage on inclined surfaces.
- Good handle ability and coverage.
- No porosity.
- A fast drying.
- Good mechanical and impact resistance.
- Excellent resistance to hydrolysis and age-time.
- **Food contact applications: according to the global migration test. Report RE N° -15/12299 of 21 July 2015.**

## 2 PROPERTIES OF LIQUID GEL COAT

Brookfield viscosity (ISO 2555 - 20°C – sp5)	5 rpm : 140 - 200 Poise 50 rpm : 22 - 28 Poise
Specific gravity (ICON 012)	1.10 - 1.30 g/cm <sup>3</sup>
Non volatile content (ICON 003)	55 - 60 %
Geltime (ICON 002) (20°C – 2% MEKP on 100 g)	10 - 14 min
Water absorption (ISO 62)	18 mg

## 3 MECHANICAL PROPERTIES OF CAST BASE RESIN

Flexural strength* (ISO 178)	159,2 MPa
Tensile strength* (ISO 527)	58,43 MPa
Elongation at break* (ISO 527)	2,67%
Temperature of deflection under load* (HDT) (ISO 75-3)	81,9°C

\*Mechanical tests realised on the cured base resin of gel coat **GC 188** with 2% MEKP.  
Post cure: 16 hours at 40°C.

## 4 VERSIONS

Gel coat **GC 188** is available in all colours.

This gel coat is available in:

- Auto-demolded version: **GD 188**.
- Top coat version: **GF 188**.
- UV stabilized version: **GL188**.
- HRA: **GH 188**.
- Promoted version: **GR 188**, gel time of 6 - 8 min (20°C - 2 % MEKP M50 on 100 g).
- Top coat and pre promoted **GFR 188**, with a viscosity at 5 rpm : 90 - 110 Poise, at 50 rpm: 19 - 23 Poise (20°C - sp5) and a gel time of 11 - 17 min (20°C - 2 % MEKP M50 on 100 g).
- Low viscosity version: **GC 188 BV** with a viscosity at 5 rpm: 140 - 180 Poise and at 50 rpm: 22 - 26 Poise (20°C - sp5) and a gel time of 10 - 14 min (20°C - 2% MEKP M50 on 100 g).
- Spray and long gel time version: **GC 188 LGT**, gel time of 23 - 27 min (20°C - 2% MEKP M50 on 100 g).

### **IMPORTANT**

*All of the results obtained according to trials in our laboratory. However, we don't be responsible of manufactured parts with the **GC 188**, if the application conditions specified are not respected.*

*It is imperative that the user must also ensure that his application and his process are appropriate for this product to be used. We hereby the conformity of our products with the above specifications. We cannot be responsible for any damage caused by misuse of this product or use of the product for an application not covered in the design.*

- Spray, low viscosity and long gel time version: **GC 188 BV LGT** with a viscosity at 5 rpm: 140 - 180 Poise and at 50 rpm: 22 - 26 Poise (20°C - sp5) and a gel time of 23 - 27 min (20°C - 2% MEKP M50 on 100 g).
- Non pre-accelerated version: **GN 188** with a gel time of 12 - 20 min (20°C - **0.16% Co12%** - 2 % MEKP M50 on 100 g). This version is stable for **6** months from date of production.
- Brush version: **GC 181**, viscosity at 5 rpm: 375 - 525 Poise and at 50 rpm: 70 - 90 Poise (20°C - sp6) and a gel time of 6 - 10 min (20°C - 2 % MEKP M50 on 100 g).
- Brush and low viscosity version: **GC 181 BV**, viscosity at 5 rpm: 150 - 210 Poise and at 50 rpm: 35 - 45 Poise (20°C - sp5) and a gel time of 11 - 15 min (20°C - 2 % MEKP M50 on 100 g).
- Brush and long gel time version: **GC 180**, with a viscosity at 5 rpm: 375 - 525 Poise and at 50 rpm: 70 - 90 Poise (20°C - sp6) and a gel time of 12 - 16 min (20°C - 2% MEKP M50 on 100 g).

## **5** RECOMMENDATIONS BEFORE USE

- **GC 188** is ready to use, stir the gel coat each time before use to give a homogeneous product.
- To obtain optimum polymerization, the level of catalyst MEKP (Butanox M50 type) should be between 1% and 2% according to the size of the part to be made and the room temperature (we recommend 20°C).
- Put 0.5 to 0.7 mm thickness of gel coat (about 600 g/m<sup>2</sup>)
- Avoid excess thickness especially in angles. We recommend the application of several thin layers rather than a thick one.
- **For the non pre-accelerated version (GN 188), take care not to mix the accelerator and the peroxide together, add them separately into the resin.**

## **6** POST CURING

To obtain optimum properties of the **GC 188**, it is necessary to fully cure the laminate (GC and resin). The laminate must stay at ambient temperature (16 - 20°C) for 24 hours, then, we advise to post-cure for 16 hours at 40°C. This post-curing must be done immediately after the initial cure.

## **7** PACKAGING

Available in cans of 25 kg or drums of 225 kg.

## **8** STORAGE CONDITIONS AND HANDLING

Storage life: Gel coat **GC 188** is stable for 3 months from date of production. The product must be stored in original closed packaging at a temperature between 15°C and 25°C, away from direct sunlight.

It is the responsibility of the customer to assure that the product is used in good conditions overall before the date limitation mentioned on the keg.

The gel coat is subject to the Highly Flammable Liquids Regulations.

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