

TECHNICAL DATASHEET Page 1 on 3 (Edition of 25 Sept. 2015) Revision 1

## **GCIG Serie X**

Polyester gelcoat, Iso/NPG

### Description

- Polyester gelcoat, Iso/NPG.
- Perfectly suited to the production of polyester parts requiring high resistance to environmental exposure.

### Properties

- Substantial resistance to UV and weather
- Good resistance to hydrolysis
- Good gloss retention
- Good resistance to a wide range of chemicals



• Gelcoat complies with the Det Norske Veritas « DNV » rules for High speed, light craft and naval surface craft. According to approval programme 1-501.9, 2012 and the certification N°2.21, craft, 2010. Certification n° TAK000003C.

| Non-polymerised gelcoat physical properties |               |                           |                   |             |
|---|---------------|---------------------------|-------------------|-------------|
|   | Test method   | Product type              |                   | Metric unit |
| Density                                     | DEV MOP 02-09 |                           | 1.10 - 1.24       |             |
| Viscosity                                   | DEV MOP 02-02 | Machine Reference – VM    | 11 000 – 18 000   | mPa.s       |
|   |               | Brush Reference – VB      | 35 000 - 43 000   | mPa.s       |
|   |               | Spatula Reference – VS    | 380 000 - 420 000 | mPa.s       |
| Thixo. index                                | DEV MOP 02-02 |                           | >5.50             |             |
| Solid content                               | DEV MOP 02-06 | Machine Reference – VM    | 55 – 60           | %           |
|   |               | Manual References – VB/VS | 63 – 67           | %           |
| Gel time                                    | DEV MOP 02-01 |                           | 11 – 16           | min         |
| Lamination time                             | DEV MOP 02-13 |                           | 45 –60            | min         |

| Base resin mechanical properties |             |       |             |  |
|----------------------------------|-------------|-------|-------------|--|
|                                  | Test method |       | Metric unit |  |
| Tensile strength                 | ISO 527-2   | 80    | MPa         |  |
| Tensile modulus                  | ISO 527-2   | 3 700 | MPa         |  |
| Elongation at break              | ISO 527-2   | 3.30  | %           |  |
| HDT                              | ISO 75/A    | 84    | °C          |  |



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#### Uses

- Marine
- Swimming pool (\*)
- Sanitary ware
- Various equipment

(\*) In regards with the current results of our tests in the swimming pool field, and particularly considering colour resistance, we recommend the use of light colours: White, Beige 1013, 1014, 1015, Grey 7035, 7045, Blue 50175, 50990, Green 60450. Polyprocess SAS will not be held responsible in case of litigation with other colours, mostly dark ones, and no claims will be admissible.

#### **Complementary references**

- Manual application with a brush VB or with a spatula VS or application with a dispensing unit VM
- Casting reference or paraffin-waxed reference TOP COAT
- Adjusted gel time FCI = Fast Curing Injection = shorter gel time for RTM
- Internal release agent in order to ease de-moulding and to prevent moulds clogging
- All RAL colours or according to countertype

| Product features       |    |  |   |
|------------------------|----|--|---|
| Colour control         | () | Spectro-colorimetric analysis of each batch according to RAL certified chart or countertype.<br>$\Delta$ L, $\Delta$ a, $\Delta$ b and $\Delta$ E according to colour.   |   |
| Equipment and settings |    | Spray gun<br>Nozzle: 2.5 to 3mm<br>Pressure: 3 to 4bars<br>Mould distance: 30 to 50cm  | <u>Airless</u><br>Assisted air nozzle: 419<br>1840 or 2140 Carbide nozzle –<br>according to part dimensions<br>Mould distance: 60 to 80cm |
| User instructions      |    | <ul> <li>Slightly stir the gelcoat before use.</li> <li>Use a Methyl Ethyl Ketone Peroxide – MEKP – catalyst between 1 and 2%.</li> <li>Check the gelcoat/catalyst mix and homogeneity.</li> </ul>                               |   |
| Thickness              | T  | - The applied gelcoat thickness should not exceed 400 to 800 microns – control to be done with a thickness gauge.  |   |
| Storage                |    | <ul> <li>This product should be stored no more than 3 months after<br/>the production date.</li> <li>Store away from humidity.</li> <li>Store in original sealed packaging at a temperature between<br/>15°C to 25°C.</li> </ul> |   |



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| Health & Safety | <ul> <li>All our products comply with RoHS regulation.</li> <li>All our products are heavy metals free, such as: lead, mercury, cadmium, chromium.</li> <li>All our products are halogens free.</li> <li>Please refer to the product Health &amp; Safety Datasheet.</li> </ul> |
|-----------------|--|
|-----------------|--|

All information and suggestions given in this datasheet are based on personal work and we therefore considered them reliable. However we cannot be held responsible for the characteristics or outcomes achieved by the use of the above mentioned products.