

### PRODUCT DESCRIPTION

QuantiCast Chocking Compound provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Chemical Type</b>	Epoxy
<b>Appearance</b>	Orange or green liquid
<b>Components</b>	Two components - requires mixing
<b>Mix Ratio, (by volume)</b>	100 : 11.6
<b>Resin : Hardener</b>	
<b>Mix Ratio, (by weight)</b>	100 : 6.9
<b>Resin : Hardener</b>	
<b>Cure</b>	Room temperature cure
<b>Application</b>	Flooring & grout
<b>Specific Benefits</b>	<ul style="list-style-type: none"> <li>• Withstands temperatures from -30°C up to 121 °C</li> <li>• Non-shrinking</li> <li>• Chemical resistant</li> <li>• 100 % solids epoxy system</li> <li>• Vibration resistant</li> <li>• Self-levelling</li> <li>• Allows flow into hard to reach areas</li> <li>• Application versatility</li> </ul>

QuantiCast Chocking Compound is a two-part epoxy chocking system. It is recommended for the installation of main engines and other equipment. Its high compressive strength withstands maximum loads. Typical applications include installation of main engines, drive engines, winches, hoists and deck mounted equipment.

### TYPICAL PROPERTIES OF UNCURED MATERIAL:

#### Resin (Orange)

Viscosity, Brookfield - RVDV3,25°C,mPa·s (cP):  
 Spindle 7,, speed 20 rpm 80,000 to 110,000  
 Weight Per Gallon, lbs/gal 13.3 to 14.0

#### Resin (Green):

Viscosity, Brookfield - RVDV3,25°C, mPa·s (cP):  
 Spindle 7,, speed 20 rpm 85,000 to 105,000  
 Weight Per Gallon, lbs/gal 13.5 to 14.3

#### Hardener:

Viscosity, Cone & Plate, 25 °C, mPa·s (cP):  
 Shear rate 3,000 s<sup>-1</sup> 32.6

### Mixed:

Density @ 25 °C, ISO 1675, g/cm<sup>3</sup> 1.5  
 Coverage 636 cm<sup>3</sup> per 1kg  
 (17.6 in<sup>3</sup> per 1 lb)

### TYPICAL CURING PERFORMANCE:

#### Curing properties:

Cure time @ 25 °C, hours 24  
 Working time @ 25 °C, minutes 10-15  
 Gel time (Orange) @ 25 °C, minutes 33 to 47  
 400g mass  
 Gel time (Green) @ 25 °C, minutes 38 to 45  
 400g mass

### TYPICAL PROPERTIES OF CURED MATERIAL:

Cured for 24 hours @ 25 °C

#### Physical properties:

Shore hardness, ISO 868, Durometer D 90  
 Tensile strength N/mm<sup>2</sup> 38  
 ISO 527-2 (psi) (5,500)  
 Compressive strength N/mm<sup>2</sup> 110  
 ISO 604 (psi) (16,000)  
 Compressive modulus N/mm<sup>2</sup> 2,760  
 ISO 604 (psi) (400,000)  
 Tensile Modulus N/mm<sup>2</sup> 8,400  
 ASTM D 638 (psi) (1,220,000)  
 Glass Transition Temperature TMA 110 °C  
 ISO 11359-2  
 Co-efficient of Thermal Expansion, ISO 11359—2 K<sup>-1</sup>  
 Below Tg 47x10<sup>-06</sup>  
 Above Tg 110x10<sup>-06</sup>  
 Barcol Hardness, ASTM D 2583-06 50

### GENERAL INFORMATION

**This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.**

**For safe handling information on this product, consult the Safety Data Sheet (SDS).**

#### Directions for use:

**Surface Preparation:**

1. Store kits at 15 °C to 25 °C for at least 24 hours before beginning the chock pour
2. Bedplates and machinery should be at least @ 15 °C to ensure complete flow
3. Once the engine is in position, install sides and backs of dams for the chocks in a thickness of 12 to 70 mm. Check dams with a flashlight to assure tightness. When a thicker chock is required, use the multiple pour technique. Allow each pour to set and cool before proceeding. Subsequent pours should be made within 12 hours of previous pour
4. Apply general-purpose weather stripping to the front edge of bedplates that will be in direct contact with epoxy excess to eliminate cracking
5. Release agent or grease should be used in the prepared chock area and on exposed anchor bolts to facilitate chock removal for realignment
6. Position front dams using an angle iron large enough to permit a minimum of a 12.5 mm head above the bedplate surface. Position dams from 16 to 19 mm away from bedplate edges

**Mixing:**

Check Marine Chocking temperature and bedplate temperature. Add the required amount of hardener (per the reduction chart) to the contents of the resin can and mix with a heavy-duty drill for 1 to 5 minutes or until mixture is homogeneous. Mix at moderate speed, but do not allow a vortex to form. If the mixer vortexes, air will be drawn in which will cause bubbling of the chocking compound. Let the mixed product stand for 3 to 5 minutes to de-aerate

**Application Method:**

1. Pour chocks from one corner to maximize the escape of air and assure good surface contact. At 25 °C working time is approximately 10 to 15 minutes
2. Allow chocks to cure the following minimum times before torquing bolts and checking alignment:  
35 hours at 15 °C  
24 hours at 21 °C  
16 hours at 26 °C  
11 hours at 32 °C

**Technical Tips for Working With Epoxies**

Working time and cure depends on temperature and mass:

- The higher the temperature, the faster the cure
- The larger the mass of material, the faster the cure

To speed the cure of epoxies at low temperatures:

- Store epoxy at room temperature
- Pre-heat repair surface until warm to the touch

To slow the cure of epoxies at high temperatures:

- Mix epoxy in small masses to prevent rapid curing
- Cool resin/hardener component(s)

**Not for product specifications**

The technical data contained herein are intended as reference only and are not considered specifications for the product.

Product specifications are located on the Certificate of Analysis or please contact QuantiServ representative.

**Storage**

Store product in the unopened container in a dry location. Material removed from containers may be contaminated during use. Do not return liquid to original container. Storage information may be indicated on the product container labeling. **Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties** Wärtsilä cannot assume responsibility for product which has been contaminated or stored under conditions other than those recommended. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\mu\text{m} / 25.4 = \text{mil}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**Note:**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Wärtsilä is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 2.5



Technical Data Sheet

# QuantiCast

## Chocking Compound

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