

### **Provisional datasheet**

## **Modelling Paste**

## **XD 4618-1 Resin/ Hardener (Marine Paste)**

## Machine applied, epoxy paste

#### **Key properties**

- Quick model build up via high output automated equipment
- 10 to 20 mm thickness layer
- Virtually odourless during application and cutting
- Room temperature curing, machinable after 2 days
- Easily machined formulation, producing a fine, seamless surface

#### **Applications**

Models

#### **Product data**

| Property             | Unit              | XD 4618-1<br>Resin  | XD 4618-1<br>Hardener |
|----------------------|-------------------|---------------------|-----------------------|
| Appearance<br>Colour | visual            | Paste<br>Light Grey | Paste<br>Off-white    |
| Density              | g/cm <sup>3</sup> | 0.85-0.95           | 0.85-0.95             |

#### **Processing**

| Mix ratio          | Parts by weight | Parts by volume |
|--------------------|-----------------|-----------------|
| XD 4618-1 Resin    | 100             | 100             |
| XD 4618-1 Hardener | 50              | 50              |

- Ensure substructure is strong, stable, clean and free of loose material.
- Apply paste by using suitable equipment.
- Allow to cure for at least 48 hours at room temperature before machining

#### **Typical Properties**

| Resin/Hardener mix:  | Volume  | Unit | XD 4618-1<br>Resin/<br>Hardener |
|----------------------|---------|------|---------------------------------|
| Appearance           |         |      | Light Grey                      |
| Pot life at 25°C     | 1000 ml | min  | 300                             |
| Max. Layer thickness |         | mm   | 20                              |
| Machinable after     |         | day  | 2                               |

After cure: 7 days at RT

| Density                                   | ISO 1183    | g/cm <sup>3</sup>                | 0.95-1.0 |
|---|-------------|----------------------------------|----------|
| Hardness                                  | ISO 868     | Shore D                          | 65-75    |
| Coefficient of thermal expansion          | ISO 11359   | 10 <sup>-6</sup> k <sup>-1</sup> | 45-50    |
| Heat Deflection Temperature               | ISO 75      | °C                               | 47       |
| Compressive strength                      | ISO 604     | MPa                              | 51       |
| Compressive modulus                       | ISO 604     | MPa                              | 1900     |
| Flexural strength                         | ISO 178     | MPa                              | 29       |
| Tensile strength                          | ISO R 527/1 | MPa                              | 21       |
| Linear shrinkage**                        |             | mm/m                             | 1.0      |
| **Test sample 1000 x 60 x 40mm, released. |             |                                  |          |

#### Storage

The resin and hardeners have yet to be fully determined, but will be at least 6 to 12 months provided they are stored at  $18 - 25^{\circ}$ C in a dry place and in sealed containers, preferably those in which they are supplied.

#### **Packaging**

| System          | XD 4618-1 Resin | XD 4618-1<br>Hardener |
|-----------------|-----------------|-----------------------|
| Pack sizes (kg) | 30<br>150       | 30<br>150             |

# Handling precautions

#### Caution

Our products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data sheets for the individual products and should be referred to for fuller information.

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