

## ISO GELCOAT 8000-I-1

### Applications

DSM Arctic 8000-I-1 is a non-pigmented Isophthalic brush gelcoat suitable for duty in marine and general moulding. This gelcoat may be used where excellent weathering or long term water exposure is called for. It is intended to be used, suitably pigmented with Neolite pigment pastes.

### Application characteristics

DSM Arctic 8000-I-1 is a pre-accelerated, thixotropic gelcoat ready for use. It exhibits reduced sensitivity to temperature variations in the moulding process, outstanding ease of application to the mould (low brush drag) and rapid curing. Do not add solvents such as acetone. If required 2% of styrene may be added to obtain reduced viscosity for special application purposes. The gelcoat can be applied with conventional brush or roller equipment

### Packaging, storage and handling conditions

DSM Arctic 8000-I-1 is available in 20 kg packaging. It should be stored in the original closed packaging at a temperature not exceeding 20°C out of direct sunlight, and away from direct heat sources. Under these conditions, the product has a stability of 3 months from despatch date.

DSM Arctic 8000-I-1 has a Flashpoint of approximately 34°C. It is **FLAMMABLE** and should be kept away from naked flames.

Consult the SAFETY DATA SHEET.

### In order to obtain optimum performance it is advisable to operate as follows:

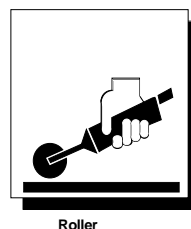
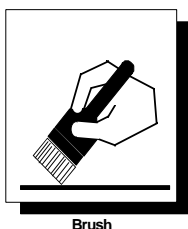
- Stir each pail thoroughly but slowly before use. To prevent air entrapment do not use high shear mixing equipment.
- Temperature between 18°C and 25°C of gelcoat, mould and working environment.
- Relative humidity below 80%.
- Cure with recommended MEKP 50% catalyst solution and adjust amount between 1-3% according to ambient temperature and technical requirements.
- When applied in one layer it should be between 500 and 800 µm wet. Depending on the applicator skills, it is advised to apply in two layers. First layer of 400 – 500 µm wet. After cure of the layer apply a subsequent layer of approximately 300 µm wet. The second layer is to prevent thin places and to guarantee an uniform film thickness
- Use a film thickness gauge to ensure proper film thickness during application
- Ensure that the mould is well ventilated. Styrene vapours will inhibit the polymerisation and tend to stay in the lower parts of the mould.
- Apply back-up laminate as soon the gelcoat is sufficiently cured (firm film yet tacky to the touch).

\* Butanox M50 (Akzo) or equivalent

### Principal properties

DSM Arctic 8000-I-1 exhibits consistent application qualities across the normal temperature range and offers rapid curing and low brush drag. The cured film offers excellent weathering properties and water resistance.

## APPLICATION METHODS FOR DSM ARCTIC 8000-I-1



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**Characteristics of the product in liquid form**

Characteristic	Method	Unit	Typical values
Viscosity at 20°C Brookfield (#4 rpm 4)	TM 2014	mPa s	8000 - 11000
Gel time at 20°C 100 gram with 1.5 gram Butanox M50	TM 2626	min.	8 - 15
Solid content (30 min at 130°C)	TM 2024	%	70 - 73

**Characteristics of the cured product**

Characteristic	Method	Unit	Typical values
Tensile strength (*)	ISO 527-2	MPa	80 ± 5
Tensile modulus (*)	ISO 527-2	MPa	3900 ± 500
Elongation at break (*)	ISO 527-2	%	3.5 - 4.5

(\*) after 8 hours at 80°C

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