

## Technical Specification Sheet

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### Acrylic-120T Thermal Curing Impregnant

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#### 1. Characteristic data of the product

Acrylic -120T is an impregnation sealant based on thermal curing impregnants used extensively in the world of the motor industry to seal porosity in metal castings such as cylinder heads, cylinder blocks, transmission cases, oil pumps and fuel rails to name a few. Acrylic -120T is not confined to metal casting and will be attracted to almost anything that has capillary attraction such as stone, wood or composite materials. It is naturally self penetrating and may provide renewed strength to its host material as well as protecting it against weather ingress, frost damage and decay.

#### 2. Physical and Chemical properties (liquid)

<b>Appearance:</b>	1 Pack Liquid Catalysed. Can be separate
<b>S.G. @ 20°C:</b>	0.890-0.98
<b>Surface Tension:</b>	30 dynes/cm
<b>Odour:</b>	Mild methacrylate
<b>Viscosity:</b>	20°C No 1. Zahn 27-31 sec
<b>Fluorescent:</b>	On request
<b>Vapour Pressure:</b>	<1mm Hg
<b>Solvent:</b>	Emulsifiable
<b>Flash point:</b>	104°C
<b>Relative absorption:</b>	35%
<b>Volatile matter:</b>	<2%
<b>Shelf Life:</b>	6 months*
<b>Gel Time: (room temp)</b>	60-180 secs
<b>Cure shrinkage:</b>	9.3%
<b>Adhesive strength:</b>	112N/cm <sup>2</sup>
<b>Swelling:</b>	(H <sub>2</sub> O 96hrs) 10/12%
<b>Sealability:</b>	100%
<b>Temperature Range:</b>	-50/+200°C
<b>Co-efficient/lin/exp:</b>	0.000157/°C

#### 3. Chemical Resistance (cured)

US Mil Standard aluminum test rings treated with the Acrylic-120T formulation remained sealed when subjected to the following tests:

<b>Anti-freeze:</b>	(ethylene glycol) 150°C - 14 days
<b>Hydraulic Fluid:</b>	100°C - 14 days
<b>Gasoline:</b>	23°C - 14 days
<b>Engine Oil:</b>	150°C - 14 days
<b>Water:</b>	100°C - 14 days
<b>Brake Fluid:</b>	25°C - 14 days
<b>Transmission Fluid:</b>	25°C - 96 hrs
<b>Lubricating Oil:</b>	121°C - 48 hrs
<b>Turbine Fuel:</b>	23°C - 48 hrs

### Chemical Resistance (cured) *cont*

<b>Diester Grease:</b>	23°C - 48 hrs
<b>18% Sulphuric Acid:</b>	23°C - 2 hours
<b>10% Caustic Soda:</b>	50°C - 14 days
<b>Stoddart Solvent:</b>	23°C - 48 hrs
<b>Trichloroethylene:</b>	25°C - 14 days
<b>Ethyl Alcohol:</b>	23°C - 48 hrs
<b>Thermal Resistance:</b>	200°C - 24 hrs
<b>Hydrocarbon Fluid:</b>	23°C - 14 days
<b>Carbon Removal:</b>	23°C - 30 mins

### 4. Approvals

The Porosity Sealant from which **Acrylic -120T** Impregnant is based has approvals from the following:

#### General Authorities:

US Navy MIL I 17563B Class 1, and 3.  
Underwriter's Laboratory Inc. MH 16455.  
Lloyd's Reg/Ship. MAT/05N1002.  
British Admiralty

#### Automotive:

Ford Motor Corp.	General Motors.	Chrysler Corp.
Hyundai Motor	Honda Motor Corp.	Volkswagen Co.
Toyota Motor Corp.	Nissan Motor Corp.	Perkins Engine Co.
BMW	Renault Motor Co.	Fiat Motor Co.
Bosch Auto.	Cummins Corp.	Citroen Motor Co.
Rolls Royce Motor Co.	Lucas Diesel Co.	Peugeot Co.
Caterpillar Corp.	Rover Motor Co.	

#### Aerospace:

Boeing Aircraft Corp.	(AWAC)	British Aerospace.
BAE/GW/374	Bundesamt Fur	ML 8030-010
Beschafhing		

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