



TECHNICAL DATA

Roofing Resin

DESCRIPTION

Unsaturated polyester resin in styrene monomer
Orthophthalic
Low Reactivity
Pre-Accelerated
Mildly Thixotropic
Unpigmented
Low Styrene Emission

APPLICATION

Hand Laminating (Roofing)

CHARACTERISTICS

Good Interlaminar Adhesion
Good wet out
Good Air Release

USE AREAS

Roofing

SPECIFICATION

Viscosity Rotothinner at 25°C 2.6 - 3.5 dPaS
Monomer Content 39 - 44%
Appearance: Amber Thixotropic Liquid

TYPICAL PROPERTIES

20°C, 2% MEKP(1)
Gel Time - 12-18 minutes
Shelf Life - 6 months
Gel time will vary depending on Winter or Summer grade.

CATALYST

CUROX M400
BUTANOX HBO50 - AKZO CHEMIE
BUTANOX LPT - AKZO CHEMIE

	Cast	Laminate
Flex Strengt	120	220 MPa
Tensile Strength	72	136 MPa
Tensile Modulus	4.0	6.8 G.Pa
Elongation to Break	3.0%	
H.D.T.	65°C	
Barcol 943-1 hardness		35-40

HANDLING PRECAUTIONS AND STORAGE

Polyester resins which contain styrene monomer, an irritant liquid with a fl ash point below 32°C (90°F), are in general subject to the Highly Flammable Liquids and Liquid Petroleum Gases Regulations 1972. The resins should be stored cool, away from direct sunlight, in closed metal containers (such as the drums in which they are supplied) if maximum shelf life is to be maintained. The quantity of styrene vapour in the working atmosphere should not exceed the Threshold Limit value of 100ppm and when stored in bulk, adequate venting of large tanks is recommended together with a storage temperature not exceeding 0°C(68°F). It is preferable to wear gloves/goggles when handling polyester resin solutions to guard against any possible skin/eye irritation arising from the presence of styrene.



SAFETY DATA SHEET

Roofing Resin

1. EMERGENCY TELEPHONE NUMBERS

01305 766 703

2. TRADE NAME

Diamond Roofing Resin

CHEMICAL NAME (PRODUCT TYPE)

74% Non-volatile unsaturated polyester resin in styrene

3. PHYSICAL PROPERTIES

Appearance & odour: Pale coloured viscous liquid with characteristic odour of styrene

Solid	Liquid*	Gas	Paste	Thixotropic
3a)	Boiling Point °C	3b)	Melting Point °C	3c) Specific Gravity at 20°C
ca	295°F/145°C		Not applicable	1.23
3d)	Miscibility in Water	3e)	Flash Point (Closed Cup)	3f) Total Lead Content ppm
	Miscibility *** Immiscible Partially Miscibility		32°C	Zero
3g)	Explosion Limits in Volume % in air	3h)	Spontaneous Combustion Temperature	3i) Acidity/Alkalinity/pH
	Lower: 1.1 Upper: 6.1		490°C in air (450°C in pure oxygen)	-

4. TOXICOLOGICAL DATA

4a) Threshold Limit Value (TLV-8hrs TWA)		Source
Styrene (CAS 100-42-5)	100ppm	Threshold limit values and Biological exposure indices for
4b) Occupational Exposure Limits (OEL)		Source: EH 40/88
	Long Term Exposure Limit 8 hr TWA value	Short Term Exposure Limit 10 min TWA value
	ppm	mg m ⁻³
Styrene (max exposure limit)	100	420
		ppm
		mg m ⁻³
		250
		1050
4c) Inhalation		4d) Ingestion
Odour detectable at 0.25 ppm. At 200-400 there is a transient irritant effect on nasal		Severe irritation and symptoms similar to inhalation.

passages. At 400-1000ppm increasing systematic effects such as dizziness, nausea and headache. At 800ppm and over becomes intolerable to mucous membranes. At 10,000 and over may cause death in less than one hour.

4e) Skin Contact

Irritant and defatting. May cause dermatitis and permit bacterial attack.

4f) Eye Contact

Vapour at 200-400ppm has transient irritating effect on the eyes. Splashes extremely irritant and dangerous.

5. FIRST AID - EMERGENCY ACTION

5a) Inhalation

Remove patient to open air and seek medical assistance immediately.

5b) Ingestion

Seek medical aid immediately. Severe irritant. Drink copious amounts of water.

5c) Skin Contact

Remove excess, wash with soap and water and/or proprietary cleansing cream.

5d) Eye Contact

Wash out with copious amounts of water and/or approved eye lotion. Seek medical advice.

6. LABELLING INFORMATION

6a) IMCO CLASN: 3.3 **IMCO PAGE :** 3153 **SI No./UN No** 1866

6b) This product contains the substance(s) which are;

Highly Inflammable	Corrosive	X	Irritating
Toxic	Harmful		Oxidising

in the sense of current UK and EEC legislative requirements:

6c) This product contains the substance(s)

EEC No:	Chemical Name of Solvent/Substance	% Weight	Danger Class
601-026-00-0	Styrene	26	Xi (SI 1244)

6d) Label Reference 74

7. STORAGE AND HANDLING

7a) Environmental Health Hazards

None known other than stated in this document.

7b) Dangerous Decomposition Products

None know

7c) Storage

Store in closed container under dry, cool conditions. Maximum recommended storage time is 3 months.

7d) Conditions for Opened Drums (e.g. hygroscopic). Include reactions

Containers should be resealed immediately after use and re-stored under dry, cool conditions.

7e) It is recommended that the following should be worn:

X	Goggles	X	Gloves	X	Face masks
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A GOOD STANDARD OF PERSONAL AND INDUSTRIAL HYGIENE SHOULD BE MAINTAINED AT ALL TIMES.

7f) Ventilation

Ensure efficient ventilation in working area.

7g) Spillages

Should be soaked up with absorbent inert material (e.g. sand or earth) and collected for disposal in closed containers.

7h) Empty Drums

Empty drums may contain residue resin and care should be taken to avoid inhalation and eye or skin contact. Additionally, there may be solvent vapour build-up. Store away from source of ignition.

7i) Waste Disposal

Notifiable waste. Dump or burn under controlled conditions. Contact local Authority for advice.

8. FIRE - EMERGENCY ACTION - CALL FIRE BRIGADE IMMEDIATELY

Extinguishing Method

X	Carbon Dioxide	X	Dry Chemical	X	Foam	Water
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9. Supplementary information attached:

This Health and Safety Product Information Sheet has been approved by:

1 _____ 2 _____

The gel time and viscosity have been adjusted for seasonal temperature variations and the gel time can be identified from the six-digit identification number on the batch label of the container.

Example:

20.15.02 - Catalist addition%
 Gel time in minutes | Temp. of test (°C)

(This batch would cure in 20 minutes at a temperature of 15°C with the addition 2% catalyst)