



RESINS & PLASTICS LTD.

R-5301

TECHNICAL DATA SHEET

R-5301 Liquid Cycloaliphatic amine adduct curing agent.

Description:

R-5301 is liquid cycloaliphatic amine adduct curing agent, it is used in combination with unmodified/modified liquid epoxy resin for self-levelling top coat applications. It offers medium pot life, good wetting ability and high gloss coatings.

Application and Key Properties:

Suitable for formulating self-levelling top coats with various choice of resins.

Low color and color stability, High gloss in coatings, Low viscosity and good wettability.

Product specification:

R-5301

Sr. No	Specification	Units	Reference standard	Specification
1	Appearance	Visual	WI/QC/FG/A/2	Clear
2	Colour	Gardener Scale	ASTM D1544	1 Max
3	Viscosity @25°C on B/F Spindle- 27, RPM- 100	cPs	ASTM D 2196	400 - 800
4	Amine Value	mg KOH/g	WI/QC/FG/B/25	250 - 300
5	Odour	-	NA	Amine
6	Density	g/cc	ASTM D-1475	1.02 - 1.04
7	AHEW	Eq/H+	NA	115
8	Pot Life @25°C	Min	-	30 – 45

Mechanical and Thermal properties:

Sr. No	Specification	Units	Reference standard	Result
1	Compressive strength	MPa	ASTM C 190-2023	75.2
2	flexural strength	MPa	ASTM C 348-2021	73
3	Tensile Strength	MPa	ASTM C 307-2023	52.2
4	Glass transition temperature	°C	DSC	75.71

*The neat cast were prepared as per respective standard and cured at Room Temperature for 7 days and then subjected to testing.

Chemical Resistance properties:

Properties	units	3 Days	7 Days	28 Days
Water	%	0.0291	0.039	0.0522
Methyl Ethyl Ketone	%	1.2486	2.504	destroyed
Xylene	%	0.0071	0.012	0.0261
DI Water	%	0.0147	0.0415	0.0527
10% Acetic Acid	%	0.2032	0.2295	0.3755
70% H2SO4	%	0.0298	0.099	0.1118
50% NaOH	%	0.0231	0.0402	0.1103

*1cc of cast was prepared, cured for 7 days at Room Temperature , immersed in respective chemical and % weight change was recorded.

Storage Conditions:

Components should be stored away from light & heat. Partly emptied containers should be tightly closed immediately after use to avoid exposure to air and light. For information on waste disposal and hazardous products of decomposition in the event of a fire, refer to the material safety data sheets (MSDS) for these particular products. The shelf life is 12 months for all components.