Dhalop Chemicals
Sales Division: +91-9820034078
dhalopchem@gmail.com

TECHNICAL DATA SHEET

PACM

GENERAL DESCRIPTION

PACM is a cycloaliphatic diamine which is manufactured by hydrogenation of methylene dianiline. It is a mixture of different isomers, and contains appoximately 20 % of the trans, trans-PACM. It isa colorless low viscosity liquid with a faint amine odor.

SPECIFICATION

Property	Value	Unit	Test method*
Purity	≥99.0 (sum 2-ring amines	% by wt.	gas chromatography
Trans-trans-4,4'-PACM	18 - 24	% by wt	gas chromatography
Appearance	clear liquid	-	visual
Color	max. 30 (APHA)	-.	DIN EN ISO 6271
Water content	max. 0.1	% by wt	Karl-Fischer

PROPERTIES

PACM can be used for all typical amine reactions, such as reaction with carboxylic acids, phosgene, aldehydes, ketones and epoxies.

PACM combines the advantages of cycloaliphatic polyamines in epoxy systems: low mix viscosity, moderate reactivity and lower exothermic behaviour as well as the outstanding mechanicalproperties and excellent chemical resistance. In comparison to other amines, the sensitivity against carbamate formation is reduced, which is an advantage especially for epoxy hardeners.

APPLICATION

PACM is used to produce hardeners for room temperature curing epoxies and as hardener in heat cured epoxies. Typical applications include epoxy curatives for composites and industrial floorings, and the production of specialty polyamides.

GENERAL CHEMICAL AND PHYSICAL COEFFICIENTS

Property	Value	Unit	Test method
Viscosity	29.6 (at 40°C)*2	mm^2/s	DIN 51 562, OECD 114
Molecular weight	201.3	g/mol	-
Amine value	535	mg KOH/g	DIN 16 945
H-active equivalent	52.6	g/val	
Solidification	(15)*3	°C	OECD 102
Boiling pt (1013 hPa)	320*2	°C	OECD 103
Vapor pressure (20 °C)	≤0.01	hPa	OECD 104
Flash point	160	°C	DIN 51758
Relative density, d^{20}	0.96	g/cm^3	OECD 109

STORAGE

PACM is slightly hygroscopic and tends to form carbamates by reaction with atmospheric CO^2. It should be stored free from moisture and carbon dioxide in glass, stainless steel and carbon steel containers.

PACM is stable for at least one year when stored in original containers at temperatures below 25°C.

PACM crystallizes below 15°C. It is necessary to completely liquify the entire contents of the container by warming to a maximum of 60°C and mix thoroughly before use.