

Paladin Paints & Chemicals Pvt. Ltd.

 $CH_2-NH-(R)-NH_2$

Technical Data Sheet

PPA - 7041 X 90

PHENALKAMINE EPOXY HARDENER

Phenalkamine **PPA - 7041 X 90** is Mannich base, a reaction product of distilled cashew nutshell liquid & polyamine. It is supplied as a 90% solution in xylene for easy handling.

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Chemical Structure

$C_{3}H_{7}-CH=CH-CH_{2}-CH=CH-C_{7}H_{14}$

Features

- Excellent rapid cure even at low temperatures
- Good chemical, solvent & water resistance
- Very good compatibility with
 - i) Epoxy resin based on bis-phenol A
 - ii) Epoxy resin based on bis-phenol F
 - iii) Epoxy resin based on phenolic novolacs
- Non-critical mixing ratio
- Excellent curing under humid as well as damp conditions
- Good adhesion to mechanically cleaned surfaces
- Superior corrosion resistance
- Very good flexibility
- Workable pot life

Applications

- Medium to high solid coatings
- Flooring & construction
- Marine & Industrial maintenance coatings
- Tank linings
- Adhesives
- Surface tolerant primers for metallic substrates



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Typical Properties

Sr. No.	Property	Unit	Specification	
i)	Appearance	Visual	Reddish Brown Viscous Liquid	
ii)	Colour	Gardner	17 Max	
iii)	N.V.M.	%	90 ± 2	
iv)	Amine Value	mg KOH / g	260 - 310	
v)	Viscosity @25° C	cPs	3000 - 6000	
vi)	Density @25° C	gm / cm ³	0.97 - 0.99	
vii)	Flash Point (Closed Cup)	°C / °F	32 / 92	
viii)	AHEW	g / eq.	144	
ix)	Recommended PHR (EEW -190)		72 - 85	

Curing Properties

Formulation

Liquid Epoxy Resin (EEW - 190)	100	100
Paladin PPA - 7041 X 90	72	85

Optimum Curing Schedule 7 days at 25° C

Gel Time (100g @ 25° C) Mixing	75 - 85 min	65 - 75 min
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<u>B.K Drying Recorder, set time, (200 microns) 8 mil</u> (Liquid Epoxy Resin EEW – 190)

@ 25° C	12- 14 hrs
@ 5° C	20 - 22 hrs
0°0 @	38 - 40 hrs

Storage & Stability

Hardener **PPA - 7041 X 90** should be stored in a cool dry place at 18 - 25 ° C in the sealed containers to achieve shelf life of minimum one year. Product can react with moisture & carbon dioxide in the air. This may result in increased viscosity & reduced activity.

Handling Precautions

May be harmful if ingested or absorbed through the skin & can cause sensitization. Will cause severe inflammation in contact with eye & skin. Wash thoroughly after handling. Adequate ventilation is essential during application. Containers should be tightly closed when not in use or during transportation. Do not inhale mist or vapours. It is recommended to use gloves, safety glasses & protective clothing for safe handling.



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First AID

In case of		
Inhalation	:	Remove to fresh air & give oxygen if breathing is difficult.
Ingestion	:	Give plenty of water. Do not induce vomiting. Contact a physician.
Contact with eyes	:	Flush eyes with plenty of clean water for at least 15 minutes.
Contact with skin	:	Immediately wash with mild soap & water.

Declaimer

All information contained is based on practical experience. Our technical advice – whether verbal, written by way of trials are given in good faith. Neither warranty nor guarantee is offered or implied & accepted at the seller's risk, since the actual conditions prevailing at the time of using this product are outside the control of the company. Hence it is entirely buyer's & user's responsibility. While the information contained here in is believed to be reliable. **Paladin Paints & Chemicals Pvt. Ltd.** makes no representations as to the results the user or buyer will attain. Product performance & full scale testing are the responsibilities of the buyer & user.

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