

Technical Data Sheet

PPA - 7040

PHENALKAMINE EPOXY HARDENER

Phenalkamine **PPA - 7040** is Mannich base, a reaction product of distilled cashew nutshell liquid & polyamines.

Chemical Structure

C_3H_7 -CH=CH-C H_2 -CH = CH- C_7H_{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 novolacs
 - iv) Most of the organic solvents & their combinations
- Non-critical mixing ratios
- Excellent curing under humid & damp conditions
- Good adhesion to mechanically cleaned surfaces
- Superior corrosion resistance
- Very good flexibility
- Workable pot life
- Low viscosity

Applications

- Solvent free, high solid coatings
- Pipeline & tank coatings
- Adhesives
- Surface tolerant primers for metallic substrates
- Marine & industrial coatings

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Typical Properties

| Sr. No. | Property | Unit | Specification |
|---------|------------------------------|-------------|----------------------------|
| i) | Appearance | Visual | Reddish Brown Clear Liquid |
| ii) | Colour | Gardner Max | 17 Max |
| iii) | N.V.M. | % | Solvent Free |
| iv) | Amine Value | mg KOH / g | 490 - 550 |
| v) | Viscosity @ 25° C | cPs | 1000 - 4000 |
| vi) | Density @ 25° C | g / cm³ | 0.98 - 1.01 |
| vii) | Flash Point (Closed Cup) | °C / °F | 107 / 225 |
| viii) | AHEW | g / eq. | 81 |
| ix) | Recommended PHR (EEW -190) | | 30 - 40 |

Curing Properties

Formulation

| Liquid Epoxy Resin (EEW - 190) | 100 | 100 |
|--------------------------------|-----|-----|
| Paladin PPA - 7040 | 30 | 40 |

Optimum Curing Schedule 7 days at 25° C

| Gel Time (100g @ 25° C) Mixing | 50 min | 40 min |
|----------------------------------|--------|--------|
|----------------------------------|--------|--------|

B.K Drying Recorder, set time, (200 microns) 8 mil (Liquid Epoxy Resin EEW - 190)

| @ 25° C | 6 - 8 hrs | |
|---------|---|--|
| @ 5° C | 14 - 16 hrs | |
| @ 0° C | 30 - 35 hrs Hheavy Blush at 42 ° F & 100 RH | |

Storage & Stability

Hardener **PPA - 7040** 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 & reduce 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

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Paladin Paints & Chemicals Pvt. Ltd.

Unit No-204, Monarch Chambers, Marol Maroshi Road, Marol Naka, Andheri (E), Mumbai 400 059, Maharashtra, India. **Phone:** (022) 29202587 / 29206258 . **Fax:** (022) 29254386 . **Email:** vanaprabha@vsnl.com

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