

## Global Network

With our distribution network over the world, Admark aims to provide innovative solutions to all your coating needs.



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**ADMARK**  
POLYCOATS PVT. LTD.

**EPOXY HARDENERS  
BUILT TO PERFORM**

[www.admarkpolycoats.com](http://www.admarkpolycoats.com)



# SOLUTIONS FOR SAFEGUARDING THE SURFACE

Since its inception in 1999, Admark Polycoats Pvt. Ltd. has become a preferred manufacturer & exporter of Phenalkamines and their varied Epoxy Adducts among other products. We have successfully carved a niche for ourselves in the industry, with unparalleled commitment, performance and extraordinary services.



## Phenalkamine Epoxy Curing Agents

Admark Polycoats Pvt. Ltd. is a pioneer in manufacturing of Phenalkamines, an epoxy curing agent derived from Cardanol and its derivatives. Cardanol, is a natural phenol, obtained from anacardic acid, the main component of Cashew Nut Shell Liquid (CSNL) and hence a 'green product'.

Admark manufactures its own Cardanol and therefore, provides highly distilled and pure Cardanol and its derivatives viz. Phenalkamines & Phenalkamides for the coatings and adhesive industries.

With over two decades of experience, Admark has continuously developed Phenalkamine technology for innovative solvent-free, low viscosity, and faster curing products. Phenalkamines are the Mannich reaction of Cardanol, polyamine and aldehyde. It is a natural product amine, epoxy hardener able to cure at low temperature.



### Advantages

- Excellent fast cure at low temperature (even below 0°C)
- Less susceptible to carbonation
- Good adhesion to damp surfaces
- Resistance to wide variety of chemicals
- Non critical mixing ratios
- High solids or solvent less coatings
- Low VOC
- Surface tolerant
- Rapid Recoating Interval
- Non-blushing properties
- Improves productivity, energy saving and faster stability

## Light Colour Phenalkamine Epoxy Curing Agents (LT Series)

For years, cashew nutshell liquid technology has had the reputation of producing only products that are dark in color or only usable for non-color sensitive applications. Over 5 years ago, Admark started to change this trend and developed lighter colored products with the introduction of the LT series of epoxy curing agents and diluents.

Admark LT series is the next generation in light colored technology with Gardner color < 10.



## Phenalkamide Epoxy Curing Agents

Polyamides and modified Polyamides have been used for several decades by coating industry. However, Polyamides have several limitations. They cure very slowly below 15°C & need induction period to react with Epoxy resin for good film formation.

Admark has introduced Novel Technology – Phenalkamide Epoxy Hardeners. They are prepared using combined chemistries of Phenalkamine and Polyamides which are suitable for normal as well as low temperature curing.

### PHENALKAMINES

- Fast Cure
- Surface Tolerance
- Low Viscosity
- Water Resistance
- Corrosion Protection
- Low Temperature Cure

### PHENALKAMIDES

### POLYAMIDES

- Extended
- Overcoat
- Flexibility
- Long Pot Life
- Color Stability

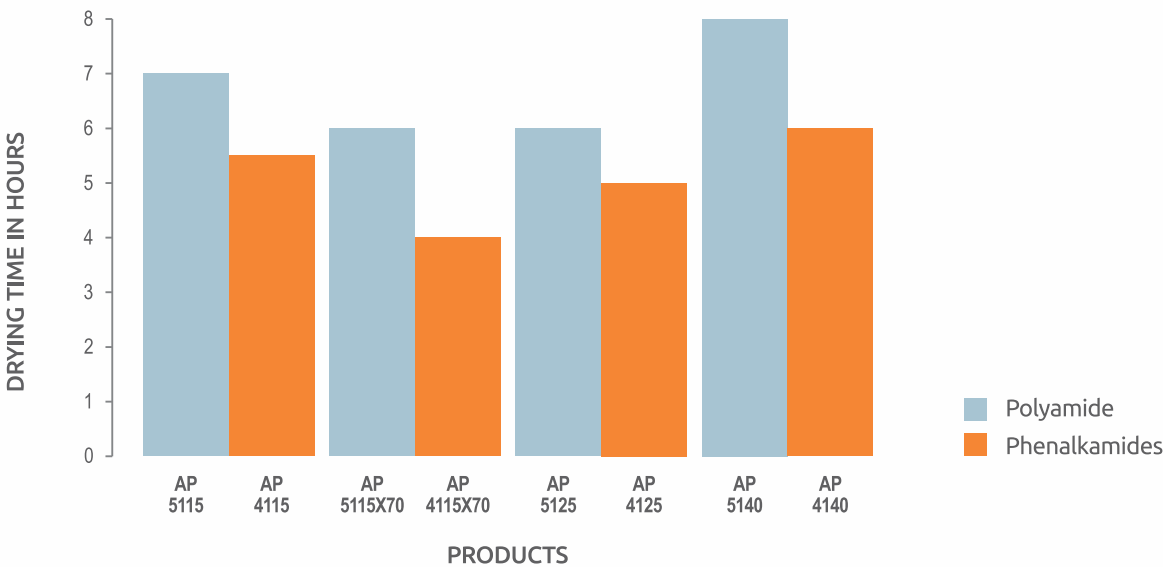
Admark’s novel Phenalkamides are surface tolerant, fast and low temperature curing, light colored epoxy curing agents, with excellent anti-corrosion properties, good flexibility and extended over-coat ability. These balanced properties enable the use of one curing agent year round for multiple applications in Marine, Protective and Industrial coatings.

### Advantages

- Weight to weight replacement for polyamide and their adducts
- Low VOC, high solid formulations
- Short re-coat able time, time saving
- All season curing agent, less inventory
- Good chemical & water resistance

## Curing of Phenalkamide Vs Polyamides

Thin film set time with epoxy resin using BK recorder (8 mils, 200 μ WFT)



## Sustainable Technology

Admark has setup its own Cardanol distillation facilities, and this is a key component to controlling the quality and consistency of Cardanol-based products. New proprietary distillation technology is at the core of the light colored products, and enables the production of a much purer Cardanol building block.

This technology has opened up a whole new set of opportunity for Cardanol derivatives and Admark continues to invest heavily in researching and developing products that utilize it to bring the unique properties of Cardanol to a variety of application areas.

With this backward integration in Cardanol, Admark can undertake customization to develop new grades of curing agents to meet specific customer needs.



## Polyamine Epoxy Curing Agents

Admark offers a wide range of Cycloaliphatic Amines, Polyamides and Polyamido hardeners for diverse industrial applications in concrete primers, screed & floor coatings, adhesive, sealants, tank lining and light colored castings.

Polyamide and Amido amines are flexible, with better water & corrosion resistance and excellent adhesion to substrates. Cycloaliphatic Amines offer better impact & abrasion resistance, with good weather ability and better chemical resistance.

## Certifications

We at Admark Polycoats constantly work towards delivering performance with perfection, and we are proud that our efforts are recognized.

- Accredited with ISO 9001:2008 | ISO 14001:2004 | OSHAS 18001:2007
- REACH Compliant
- Compliant with Country Inventory lists of USA, South Korea, China, Japan, Canada, Australia, New Zealand, Taiwan and Philippines



Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 25 °C (cPs)	Amine Value (mg KOH/g)	AHEW	PHR with epoxy resin (EEW=190)
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PHENALKAMINES

1	AP 1040	Solvent free	17	2000 - 4000	490 - 550	81	35 - 42
2	AP 1041	Solvent free	17	20000 - 50000	300 - 340	130	68
3	AP 1041X90	88 - 90	17	3000 - 6000	265 - 310	144	75
4	AP 1041LV	Solvent free	17	1500 - 3500	310 - 350	125	66 - 70
5	AP 1057	Solvent free	17	500 - 1500	320 - 360	95	50 - 60
6	AP 1026	Solvent free	17	1000 - 4000	350 - 385	95	50
7	AP 1454	Solvent free	14	700 - 1200	260 - 310	133	70

LIGHT COLOUR PHENALKAMINES

1	AP 1040LT	Solvent free	12	2000 - 4000	490 - 550	81	35 - 42
2	AP 1041LT	Solvent free	12	20000 - 50000	300 - 340	130	68
3	AP 1041X90LT	88 - 90	10	3000 - 6000	265 - 310	144	75
4	AP 1001LT	Solvent free	10	1500 - 3500	310 - 350	125	70
5	AP 1058LT	Solvent free	10	500 - 1500	320 - 360	95	50 - 60
6	AP 1010LT	Solvent free	10	250 - 650	350 - 380	104	50
7	AP 1008LT	Solvent free	10	500 - 1200	340 - 375	95	50

PHENALKAMINE ADDUCTS

1	AP 1080	78 - 82	17	3000 - 5000	230 - 270	164	86
2	AP 1711	74 - 76	17	6000 - 12000	205 - 235	150	79
3	AP 1087	68 - 72	17	1000 - 2500	160 - 240	162	85
4	AP 1562	64 - 66	16	1000 - 2500	160 - 210	175	92 - 100
5	AP 1300	58 - 61	15	500 - 1500	150 - 180	190	100

LIGHT COLOUR PHENALKAMINE ADDUCTS

1	AP 1072LT	78 - 82	12	1000 - 3000	200 - 250	190	100
2	AP 1080LT	78 - 82	12	3000 - 5000	230 - 270	164	86
3	AP 1711LT	74 - 76	12	6000 - 12000	205 - 235	150	79
4	AP 1087LT	68 - 72	10	1000 - 2500	160 - 240	162	85
5	AP 1562LT	64 - 66	12	500 - 2000	160 - 210	175	92 - 100
6	AP 1300LT	58 - 61	10	500 - 1500	150 - 180	190	100

Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 40 °C (cPs)	Amine Value (mg KOH/g)	AHEW	PHR with epoxy resin (EEW=190)
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PHENALKAMIDES

1	AP 4115	Solvent free	10	40000- 60000	230 - 260	240	100
2	AP 4115X70	68 - 72	10	800 - 2000 @ 25 °C	160 - 182	260 - 340	57 with Epikote 1001 (75 %)
3	AP 4125	Solvent free	10	8000 - 15000	330 - 360	125	65
4	AP 4140	Solvent free	10	3000 - 6000	370 - 410	95	50

Thin film set time (200 μ WFT)			Key Properties	Marine Coating	Protective Coating	Industrial Coatings	Concrete Primer
25 °C	5 °C	0 °C					

4	14	20	Low viscosity, surface tolerant	✓	✓		
4	16	24	Low temperature cure, surface tolerant, excellent anti-corrosion	✓	✓	✓	
4	18	26	Solvent cut for good handling	✓	✓	✓	
8	30	36+	Low viscosity for high solid coating	✓	✓	✓	
4	16	24	Good film, excellent adhesion	✓	✓	✓	✓
2	12	20	Fast cure low viscosity	✓	✓		✓
2	8	15	Fast cure for high solid coating	✓	✓	✓	

8	18	35	Low viscosity, surface tolerant	✓	✓		
4	16	24	Low temperature cure, surface tolerant, excellent anti-corrosion	✓	✓	✓	
4	18	26	Solvent cut for good handling	✓	✓	✓	
8	26	36+	Low viscosity light colour	✓	✓	✓	
10	30	36+	Low viscosity light colour, good film formation, potable water	✓	✓	✓	
4	18	30	Very low viscosity, light colour, excellent anti-corrosion	✓	✓	✓	
4	16	24	Fast cure low viscosity	✓	✓		

4	12	18	Very fast cure high solids and low viscosity.	✓	✓	✓	
2	7	14	Fast cure, good blush resistance similar properties of AP 1562, high solid %.	✓	✓	✓	
2	12	16	Fast cure, good blush resistance, adhesion and excellent corrosion protection.	✓	✓	✓	
4	8	16	Fast cure, good blush resistance and adhesion.	✓	✓	✓	✓
2	10	15	Fast hardness development, very good flexibility, similar properties of AP 1087, lower solid %.	✓	✓	✓	

2	6	10	Fast hardness development, very good flexibility high solids.	✓	✓	✓	
4	12	18	Very fast cure high solids and low viscosity.	✓	✓	✓	
2	7	14	Fast cure, good blush resistance similar properties of AP 1562, high solid %.	✓	✓	✓	
2	12	16	Fast cure, good blush resistance, adhesion and excellent corrosion protection.	✓	✓	✓	
4	8	16	Light colour, low viscosity, fast cure, good blush resistance and adhesion. High solid coating.	✓	✓	✓	
2	10	15	Fast hardness development, very good flexibility, similar properties of AP 1087, lower solid %.	✓	✓	✓	

Thin film set time (200 μ WFT) 25 °C	Key Properties		Pro- tective Coating	Industrial Coatings	Construc- tion Concrete	Adhesive & compos- ites
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6	High-viscosity, Flexibility, fast drying and good water resistance properties with solid epoxy resin.		✓	✓		
4	70 % solid solution in xylene for better handing. Solventborne primer coating.		✓	✓		
6	Medium-viscosity, 1:1 volume ratio with standard liquid epoxy resin.		✓	✓		
6	Low viscosity, fast drying for solvent free coatings. Exhibits very good adhesion, flexibility along with good corrosion protection.		✓	✓	✓	✓

Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 40 °C (cPs)	Amine Value (mg KOH/g)	AHEW	PHR with epoxy resin (EEW=190)
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POLYAMIDES

1	AP 5115	Solvent free	10	40000 - 60000	230 - 260	240	100
2	AP 5115X70	68 - 72	10	800 - 2000 @ 25 °C	160 - 182	260 - 340	57 with Epikote 1001 (75 %)
3	AP 5125	Solvent free	10	8000 - 15000	330 - 360	125	65
4	AP 5140	Solvent free	10	3000 - 6000	370 - 410	95	50

Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 25 °C (cPs)	Amine Value (mg KOH/g)	AHEW	PHR with epoxy resin (EEW=190)
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POLYAMIDE ADDUCTS

1	AP 5050	Solvent free	10	2000 - 5000	210 - 230	150	70 - 100
2	AP 5180	74 - 76	11	2000 - 6000	320 - 355	140 - 150	29 with Epikote 1001 (75 %)
3	AP 5010	48 - 52	8	900 - 2000	70 - 110	380	60 with Epikote 1001 (75 %)
4	AP 5450	Solvent free	10	700 - 2000	250 - 290	115	60

Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 25 °C (cPs)	Amine Value (mg KOH/g)	AHEW	PHR with epoxy resin (EEW=190)
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POLYAMIDO AMINES

1	AP 5500	Solvent free	10	200 - 500	450 - 475	93	48 - 50
2	AP 5501	Solvent free	10	200 - 500	450 - 475	92	48
3	AP 5503	Solvent free	10	200 - 500	480 - 520	95	50
4	AP 5160	Solvent free	10	400 - 1000	390 - 450	100	50

Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 25 °C (cPs)	Amine Value (mg KOH/g)	AHEW	PHR with epoxy resin (EEW=190)
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LOW VISCOSITY PHENALKAMIDE

1	AP 2559	Solvent free	12	500 - 1200	335 - 385	95	50
2	AP 2560	Solvent free	12	400 - 700	350 - 400	95	50

Thin film set time (200 μ WFT) 25 °C	Key Properties	Pro- tective Coating	Industrial Coatings	Construc- tion Concrete	Adhesive & compos- ites
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7	Standard high-viscosity polyamide. Flexibility, long pot-life and good properties with solid epoxy resin.	✓	✓		
6	70 % solid solution in xylene for better handling. Solventborne primer coating. Long pot-life.	✓	✓		
7	Standard medium-viscosity polyamide. 1:1 volume ratio with standard liquid epoxy resin.	✓	✓		
8	Standard high-imidazoline content polyamide. Exhibits very good adhesion, flexibility along with good corrosion protection.	✓	✓	✓	✓

Thin film set time (200 μ WFT) 25 °C	Key Properties	Pro- tective Coating	Industrial Coatings	Adhesive, sealants and putties	Concrete primer
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8	Low viscosity, high gloss, very good flexibility and impact resistance comparable to polyamide. No induction time is required.	✓	✓		
6	Faster drying as compare with std polyamide with better blush resistance.	✓	✓		
4	Very much faster drying and good humidity resistance, also able cure in humid condition having very good blush resistance and flexibility.	✓	✓		
8	Good adhesion to wet concrete. High solid coatings for corrosion, protection for concrete and marine coatings.	✓	✓	✓	✓

Thin film set time (200 μ WFT) 25 °C	Key Properties	Pro- tective Coating	Crack injection & grouts	Adhesive, sealants and putties	Concrete primer
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12	Low viscosity, better penetration in concrete and load more filler, moderate pot life. Noncritical mixing ratio. Good adhesion to concrete.	✓	✓	✓	✓
12	Modified, accelerated version of AP 5500. Cures under humid conditions. Very good adhesion to concrete. Exhibits good chemical resistance.	✓	✓	✓	✓
10	Faster gel time and thin-film cure time than either AP 5500 or 5501.	✓	✓	✓	✓
10	Low viscosity, long Pot life. Crack injection, casting, electrical potting, flooring, heavy-duty floor patching compound, crane rail grouting		✓	✓	✓

Thin film set time (200 μ WFT) 25 °C	Key Properties	Pro- tective Coating	Crack injection & grouts	Adhesive, sealants and putties	Concrete primer
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8	Low viscosity, rapid cure with good flexibility and better adhesion to concrete surface.	✓	✓	✓	✓
10	Low viscosity, rapid cure at ambient and low temperature with high mechanical and better adhesion to concrete surface.	✓	✓	✓	✓



Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 25 °C (cPs)	Amine Value (mg KOH/g)	AHEW	PHR with epoxy resin (EEW=190)
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CYCLOALIPHATIC AMINES

1	AP 5618	N/A	2	300 - 600	255 - 280	115	60.5
2	AP 5205	N/A	2	500 - 700	240 - 290	104	58
3	AP 5956	N/A	4	100 - 300	300 - 325	94	50
4	AP 5768	N/A	2	30 - 70	325 - 350	85	45
5	AP 5904	N/A	2	200 - 500	300 - 340	100	50
6	AP 5905	N/A	2	200 - 400	280 - 320	95	50

Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 25 °C (cPs)	Amine Value (mg KOH/g)	AHEW	PHR with epoxy resin (EEW=190)
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ALIPHATIC AMINES

1	AP 4237	Solvent free	2	30 - 100	300 - 340	83	40
2	AP 5637	Solvent free	3	30 - 100	300 - 340	83	40
3	AP 1121	Solvent free	4	300 - 500	385 - 410	85	45

Sr. No.	Products	Solids (% NVM)	Colour (Gardner)	Viscosity @ 25 °C (cPs)	Epoxy equivalent weight	Hydroxyl Value (mg KOH/g)	PHR with epoxy resin (EEW=190)
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EPOXY DILUENTS

1	AP 8016	Solvent free	10	40 - 55	425 - 525	NA	2 - 20
2	AP 8030	Solvent free	10	70 - 90	NA	160 - 200	2 - 20



Thin film set time (200 μ WFT) 25 °C	Key Properties	Floor Coat-ing (Top Coat)	Tank Lining	Industrial Coatings	Construc-tion Con-crete
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7	Solvent-free and high-solids coating with good color stability to produce high-gloss, non-blushing films and good chemical resistance.	✓	✓	✓	
6	Low viscosity with short geltime and have good chemical resistance. Early hardness development due to short gel time.	✓			
6	Very low viscosity hardener for self levelling floorings and mortar. Lowest tendency to waterspotting and gives better chemical resistance.	✓		✓	
6	Very low viscosity, formulated light-coloured hardener for self levelling floorings and mortar (phenol-free).	✓			
6	Highly glossy finish with good color stability (lower PHR as compare with AP 5205 and AP 5618)	✓	✓		
5	Long pot life for floor coating with good tuffness. Long pot life as compare with AP 5904.	✓			

Thin film set time (200 μ WFT) 25 °C	Key Properties	Floor Coating	Pro- tective Coating	Laminates and cast- ings.	Construc- tion Con- crete
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12	Longest pot life, low viscosity and good color stability. Gives low blush and exudation, very good flexibility. May be accelerated with other curing agents.	✓	✓	✓	
12	Nonyl phenol free, low viscosity, long pot-life. Suitable for high solids or solvent free coatings.	✓	✓	✓	
10	Accelerator version of AP 4237 and have faster drying as compare with AP 4237	✓	✓	✓	✓

Thin film set time (200 μ WFT) 25 °C	Key Properties	Marine Coating	Pro- tective Coating	Industrial Coatings	Construc- tion Con- crete
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	Reactive diluent as a viscosity reducer and flexibelize.	✓	✓	✓	✓
	Non reactive resin modifier	✓	✓	✓	✓

