



N-AMIN & N-AMID

N-AQUAMIN

N-TECAMID

N-PURTEC

N-POLYMIN

EPOXY CURING AGENTS & POLYURETHANE

Epoxy Curing Agents

High-Performance Raw Materials for Construction & Protective Coating

We offer a full line of high-quality, performance-oriented epoxy curing agents and modifiers for a wide variety of applications, including industrial coatings, civil engineering and construction, adhesives, and composites. Our experienced technical specialists have an in-depth understanding of your market requirements and are able to provide the right level of technical service and support you need.



POLYAMIDES



Polyamides are known for their water and corrosion resistance. We offer a range of polyamides and adducts that include standard grades as well as grades that do not require an induction time, improved chemical resistance, lower viscosity and faster cure speed. Polyamides are most commonly used in metal coatings applications, particularly primers, and also find uses in adhesives, putties, sealants, cable jointing and electrical encapsulation.

Epoxy Curing Agents for
Coatings & Paints
Flooring
Lamination
Adhesive
Casting

N-AMID; Epoxy Hardener: solvent-borne and solvent-free polyamides

Product	Characteristics	Viscosity [mPas]	Amine Value [mg KOH/g]	Theoretical Amine Hydrogen Equivalent Weight [g/equil.]	Pot-life [min]	Solid [%]	Main uses and characteristics
HA 315	Polyamide Resin	3.500 – 4.500 75°C	230 – 246	198	240	100	A high viscosity, reactive polyamide resin designed for use with solid or liquid epoxy resins for flexible and resistant thermoset coating applications that cure at room temperature.
HA 315 X 70	Polyamide Resin	400 – 600 40°C	155 – 175	283	420	70	A reactive polyamide resin designed for use with solid or liquid epoxy resins for flexible and resistant thermoset coating applications that cure at room temperature.
HA 325	Polyamide Resin	650 – 950 75°C	330 – 360	103	120	100	A medium viscosity, reactive polyamide resin based on dimerized fatty acid and polyamines, designed for use with solid or liquid epoxy resins for flexible and resistant thermosetting coating applications that cure at room temperature.
HA 325 X 90	Polyamide Resin	3.000 – 6.000 25°C	280 – 320	130	180	90	A medium viscosity, reactive polyamide resin based on dimerized fatty acid and polyamines in supplied 86% in solvent xylene, designed for use with solid or liquid epoxy resins for high build coatings and where the prime requirement are fast cure and flexibility.
HA 340	Polyamide Resin	8.000- 14.000 25°C	370 – 400	97	120	100	HA reactive solvent free, medium low viscosity polyamide resin designed for use with solid or liquid epoxy resins for touch, chemical resistance thermosetting coatings, curing at room temperature.
HA 345	Polyamide Resin	4.000 – 6.000 25°C	380 – 455	103	150	100	A low viscosity, reactive polyamide resin designed for use with solid or liquid epoxy resins for high solid formulations. Cure A 345 epoxy-system are usefull in encapsulating potting and laminating applications.
HA 350	Polyamidoamine Resin	700 – 1.200 25°C	420 – 450	133	160	100	A reactive solvent free, low viscosity amido-amine resin for use with solid or liquid epoxy resins for flexible and chemical resistance thermosetting applications, curing at room temperature. HA 350 is usefull in adhesives applications, electrical encapsu-lations, laminates and industrial maintenance coatings.



POLYAMIDE POLYAMINE MODIFIED



Polymer components also play a decisive role in the development of aqueous products. A range of curatives with excellent characteristic profiles is already available. Modified cycloaliphatic amines find use in solvent-free and high-solids coatings, flooring, chemically resistant linings and secondary containment. Unmodified cycloaliphatics are used in adhesives, electrical encapsulation, wet lay-up laminating, and filament winding.

N-AMIN; Epoxy Hardener: polyamine, cycloaliphatic polyamine

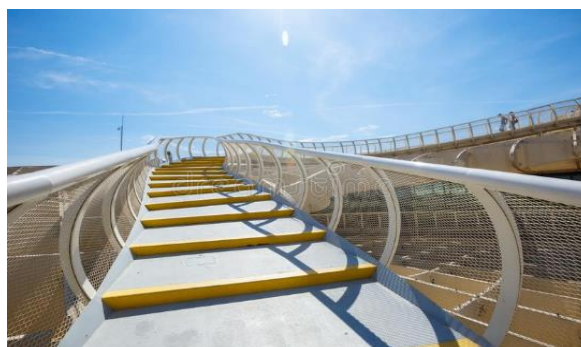
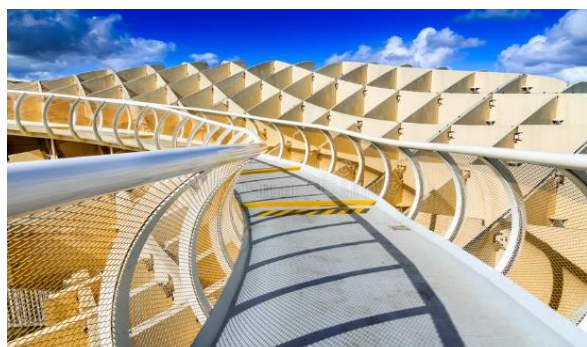
Product	Characteristics	Viscosity [mPas]	Amine Value [mg KOH/g]	Theoretical Amine Hydrogen Equivalent Weight [g/equil.]	Pot-life [min]	Solid [%]	Main uses and characteristics
HC 509	Modified stabilized polyamine adduct	130 – 230 25°C	365 – 425	90	80	100	It is preferably used in combination with suitable epoxy resin formulations for solvent-free systems. Main fields of application are primers and coatings. The lower reactivity enables usage in environments with higher temperature levels.
HC 514	Phenol-free mannich base	650 – 950 25°C	345 – 445	73	15	100	HC 514 used as cold curing epoxy systems are suitable for a wide range of industrial applications, such as floorings, mortars, adhesives, coatings, lacquers, paint.
HC 515	Cycloaliphatic Polyamine Adduct	515 – 615 25°C	365 – 425	82	21	100	HC 515 is emission-free "full reactive" modified polyamine adduct hardener, free from alkyl phenols and benzyl alcohol, with excellent water-spotting resistance and excellent general properties.
HC 535	Cycloaliphatic Polyamine Adduct	500 – 650 25°C	260 – 290	104	28	100	Modified cycloaliphatic polyamine adduct free from nonyl phenol. It is used in combination with suitable epoxy resin formulation for solvent-free systems. Main fields of application of this low-viscous hardener are ambient curing self-levelling-floorings adhesives. The composition is complied to the "Epoxy Guideline of the UBA (Umweltbundesamt, German Federal Environmental Agency)" applicable for organic coating in contact with drinking water (date 16.05.2007).
HC 543	Cycloaliphatic Polyamine Resin	250 – 450 25°C	230 – 330	115	50	100	A low viscous and solvent free epoxy curing agent based on an cycloaliphatic polyamine adduct. HC 543 is mainly used as curing agent for solvent free epoxy flooring systems. It is used as curing agent both for high filled cementing material proportion self-leveling flooring systems as well as for high filled mortars on concrete ground.
HC 544	Cycloaliphatic Polyamine Resin	650 – 1.250 25°C	250 – 350	115	50	100	Mainly used as curing agent for solvent free epoxy flooring systems. It is used as curing agent both for high filled cementing material proportion self-leveling flooring systems as well as for high filled mortars on concrete ground. At 10 °C. The composition is complied to the "Epoxy Guideline of the UBA (Umweltbundesamt, German Federal Environmental Agency)" applicable for organic coating in contact with drinking water (date 16.05.2007).
HC 510	Cycloaliphatic Polyamine Adduct	425 – 625 25°C	300 – 340	93	27	100	HC 510 used as universal curing agent for benzyl alcohol free, nonylphenol free, light color casting, solvent-free laminating and coating resin systems as well as for adhesives and highly filled coating materials, mortars and primers, solvent free epoxy flooring systems.
HC 546	Cycloaliphatic Polyamine Adduct	140- 240 25°C	250 – 350	93	34	100	Modified cycloaliphatic polyamine adduct (nonylphenol-free). It is used as universal curing agent for casting, solvent-free laminating and coating resin systems as well as for adhesives and highly filled coating materials, mortars and primers.

N-AMIN; Epoxy Hardener: polyamine, cycloaliphatic polyamine

Product	Characteristics	Viscosity [mPas]	Amine Value [mg KOH/g]	Theoretical Amine Hydrogen Equivalent Weight [g/equil.]	Pot-life [min]	Solid [%]	Main uses and characteristics
HC 540 S	Cycloaliphatic Polyamine Adduct	300 – 400 25°C	260 – 300	93	31	100	Accelerated modified stabilised cycloaliphatic polyamine free from nonyl phenol. This is preferably used in combination with suited epoxy resins for solvent-free epoxy systems.
HC 549	Cycloaliphatic Polyamine Adduct	200 – 350 25°C	250 – 350	93	33	100	HC 549 is used as an universal curing for solvent-free epoxy systems. Main field of application is the formulation of primers and coating with good through-curing at temperatures down to +80 °C. Even after short curing periods the respective coatings are resistance to water.
HC 550	Cycloaliphatic Polyamine Adduct	280 – 400 25°C	250 – 350	92	40	100	Modified cycloaliphatic polyamine adduct (nonylphenol-free). Due to its relatively low yellowing tendency on UV exposure the HC 550 is useful for the formulation of epoxy binders for aesthetically demanding coatings, e.g. mortars and top coats.
HC 555	Cycloaliphatic Polyamine Adduct	180 – 300 25°C	250 – 350	91	30	100	HC 555 is accelerated version of HC 550. It is used as universal curing agent for casting, solvent-free laminating and coating resin systems as well as for adhesives and highly filled coating materials, mortars and primers.
HC 560	Cycloaliphatic Polyamine Adduct	280 – 400 25°C	250 – 350	92	40	100	Modified cycloaliphatic polyamine adduct (nonylphenol-free). It is used as universal curing agent for casting, solvent-free laminating and coating resin systems as well as for adhesives and highly filled coating materials, mortars and primers
HC 565	Cycloaliphatic Polyamine Adduct	180 – 300 25°C	250 – 350	91	30	100	Modified cycloaliphatic polyamine adduct. It is used as universal curing agent for casting, solvent-free laminating and coating resin systems as well as for adhesives and highly filled coating materials, mortars and primers.
HC 570	Cycloaliphatic Polyamine Adduct	450 – 650 25°C	240 – 300	95	18	100	HC 570 is modified cycloaliphatic polyamine adduct and is the accelerated version of HC 570. It is used as universal curing agent for casting, solvent-free laminating and coating resin systems as well as for adhesives and highly filled coating materials, mortars and primers with good through-curing at temperatures down to + 80 °C.
HC 570-1	Cycloaliphatic Polyamine Adduct	180 – 300 25°C	250 – 350	95	12	100	HC 570-1 is modified cycloaliphatic polyamine adduct and is the accelerated version of HC 570. It is used as universal curing agent for casting, solvent-free laminating and coating resin systems as well as for adhesives and highly filled coating materials, mortars and primers with good through-curing
HS 460	Special polyamine hardener containing benzyl alcohol.	5 – 15 25°C	500 – 600	50	15	100	HS 460 is mainly used in the stone-working industry for strengthening porous and fissured natural stone slabs, concrete and concrete ashlar and improving their surface qualities. In combination with spun glass fabrics it is also used for strengthening brittle natural stone slabs.
HC 411	Polyamine Adduct	200 – 300	250 – 300	100	25	100	HC 411 can be used as a hardener component in combination with epoxy resin.

N-AMIN; Epoxy Hardener: polyamine, cycloaliphatic polyamine

Product	Characteristics	Viscosity [mPas]	Amine Value [mg KOH/g]	Theoretical Amine Hydrogen Equivalent Weight [g/equil.]	Pot-life [min]	Solid [%]	Main uses and characteristics
HC 288	Modified polyamidoamine adduct	8.000 -12.000	160 – 220	380	> 8 hr	100	A modified polyamine adduct, the curing of solvent based 2K-EP primers and topcoats used becomes.
HC 260	Modified polyaminadduct	460 – 660	250 – 350	102	46	100	HC 260 can be used as universal hardener for laminating and coating systems, high filled systems, mortars, primers and EP floor systems be used.
HC 261	Polyamine adduct	< 1.000	300 – 400	83	30	100	The hardener system has a very low color, a fast water resistance and has good surface properties, suitable for the production of water-based sealants and self-leveling coating systems.
HC 285	Modified polyamine adduct	400 – 600	270 – 370	98	16	100	HC 285 is especially suitable for chemical resistant coatings.
H 284	Polyamine Adduct	< 10.000	270 – 370	97	40	100	As a hardener component in combination with epoxy resin for the area floor coating.
H 289	Polyamine Adduct	< 1.000	265 – 365	93	35	100	Modified cycloaliphatic polyamine adduct. It is used as universal curing agent for highly filled coating materials, mortars and primers.
H 294	Polyamine Adduct	< 2.000	300 – 400	95	40	100	Hardener component in combination with epoxy resin can be used in laminating systems.
H 266	Polyamine Adduct	< 25.000	400 – 500	72	35	100	Polyamine adduct free from nonyl phenol. This is preferably used in combination with suited epoxy resins for solvent-free epoxy systems.
CA 200	Modified polyamine	590 – 790 25°C	290 – 390	89	40	100	Modified polyamine free from nonyl phenol. This is preferably used in all types of floorings multilayer, selfleveling, mortars, in moderate to warm climate protective and decorative coatings and chemical resistant coatings and flooring, with good hardness and flexibility. The hardener has a higher stability against UV light.
CA 201	Modified Polyamine	480 – 680 25°C	300 – 400	85	50	100	Modified polyamine free from nonyl phenol. This is preferably used in all types of epoxy curing, with higher stability against UV light.
BF 3388	Accelerated polyamine	200	300 – 400	75	10	100	Nonyl- and benzylalcohol free, low-viscouse fast-setting hardener with mannich-base like through-cure and excellent properties.
CA 292	Modified polyamine adduct	400 – 600	270 – 370	95	40	100	CA 292 is a modified aminaddukt, for the curing of chemical resistance coatings.
BF 3385	Polyamine Adduct	< 1.000	265 – 365	93	25	100	Nonyl- and benzylalcohol free for flooring.
BF 3300	Polyamine Adduct	max. 1.000	265 – 365	93	25	100	Benzyl alcohol, nonylphenol free for flooring and for the curing of chemical resistance coatings.
AC 947 S	Polyamine Adduct	400 – 600	350 – 450	90	11	100	AC 947 S used as accelerators in mortars or adhesives.



WATERBORNE EPOXY CURING AGENTS

Waterborne epoxy curing agents find use in protective and industrial concrete coatings, self-leveling and mortar floors and tile grouts, steel coatings with liquid resin and high molecular weight resin emulsions, and anticorrosive primers for OEM and light duty applications. Increasingly, waterborne epoxy systems are being used in protective coating applications.



High-performance waterborne epoxy formulation for self-leveling cementitious coating for concrete

N-AQUAMINE products are water-based epoxy curing agents that offer a range of benefits including low or no VOC, low color, good abrasion resistance, and good adhesion, especially to damp concrete. They are nonflammable and easy to apply and clean.

N-AQUAMINE curing agents find use in protective and industrial concrete coatings, self-leveling and mortar floors and grouts, steel coatings, and anti-corrosive primers for OEM light duty applications.

TECHNOLOGIES FOR A SECURE FUTURE



N-AQUAMIN; Epoxy Hardener: water-borne polyamide, polyamidoamine-adduct, polyamine and polyamine adduct

Product	Characteristics	Viscosity [mPas]	Amine Value [mg KOH/g]	Theoretical Amine Hydrogen Equivalent Weight [g/equival.]	Pot-life [min]	Solid [%]	Main uses and characteristics
HQ 2386	Water thinnable polyamine	3.900 – 4.100	280 – 380	86	30	80 in W	HQ 2386 is mainly used as curing agent for the manufacture of sealings and self-levelling coating systems. This curing system has a very low self-colouring, a fast water resistance and shows good surface properties.
HQ 2170	Water based polyamide	50 – 150	110 – 130	115	45	50 in IB/W	A reactive polyamide resin designed for use with solid or liquid epoxy resins for flexible and resistant thermoset coating applications that cure at room temperature.
HQ 2175	Water based polyamide	600 – 650	170 – 190	170	45	50 in IB/W	Reactive polyamide resin designed for use with solid or liquid epoxy resins for flexible, resistant thermosetting coating applications that cure at room temperature.
HQ 2621	Water based polyamidoamine adduct	4.000 – 7.000	185 – 225	165	60	70 in W/B G	Used in civil engineering in combination with Epikote 255 or 816. Recommended usage rate (phr) 100 : 120-130.
HQ 2285	Polyamine adduct	< 10.000	300 – 400	86	16	80 in water	HQ 2285 is mainly used as curing agent for the manufacture of sealings and selflevelling coating systems.
HQ 2286	Polyamin adduct	< 10.000	250 – 350	115	24	75 in water	This curing system has a very low self-colouring, a fast water resistance and shows good surface properties.
HQ 2616	Polyamine adduct	< 9.000	280 – 280	86	25	80 in water	The hardener system has a very low color, a fast water resistance and has good surface properties. N-AQUAMIN HQ 2616 is suitable for the production of sealants and self-leveling coating systems.
HQ 2648	Polyamine adduct	< 25.000	400 – 450	86	35	100 %	The hardener system has a very low color, a fast water resistance and has good surface properties.



N-POLYMIN PK; Epoxy Hardener, non-modified, solvent-based and solvent-free polycondensation polyamine

Product	Characteristics	Viscosity [mPas]	Amine Value [mg KOH/g]	Theoretical Amine Hydrogen Equivalent Weight [g/equil.]	Pot-life [min]	Solid [%]	Main uses and characteristics
PK 600	Polyamine Resin	300 – 550 25°C	625 – 775	50	50	100	A liquid, special polyamine hardener, solvent and benzylalcohol free. PK 600 is mainly used as curing agent for solvent free epoxy coatings.
PK 660	Polyamine Resin	8.000 -12.000 25°C	230 – 270	380	360	55	A solvent based amine epoxy adduct for the formulation of solvent based epoxy primers and top coats.
PK 616	Polyamine Resin	50 – 100 25°C	350 – 450	90	240	100	A liquid, solvent free, special polycondensated polyamine hardener containing benzyl alcohol. PK 616 is mainly used as curing agent for solvent free epoxy flooring systems. PK 616 is designed as hardener for epoxy system with certain elasticity properties of the cured films.



N-TECAMID PVC ADHESION PROMOTOR



The **N-TECAMID** polyamidoamine Technologies provide solutions to the most demanding performance requirements.

N-TECAMID, PVC adhesion promoter

Product	Supply Form [%]	Viscosity [mPa.s/23°C]	AMV [mg KOH/g]	Main uses and characteristics	1K
N-TEC 600	100%	7000-10000 at 25°C	270 – 310	DOP free adhesion promoter for PVC plastisols mainly used in the automotive industry as underbody coating and bodysealer.	X
N-TEC 601	100%	1500-2500 at 25°C	360 – 390	N-TEC 601 is an DOP free adhesion promoter for PVC plastisols mainly used in the automotive industry as underbody coating and bodysealer.	X
N-TEC 605	100%	1000-1500 at 75°C	370 – 400	An DOP free adhesion promoter for PVC plastisols mainly used in the automotive industry as underbody coating and bodysealer.	X
N-TEC 608	100%	1000-2000 at 75°C	380 – 410	N-TEC 608 is an DOP free adhesion promoter for PVC plastisols mainly used in the automotive industry as underbody coating and bodysealer.	X
N-TEC 610	100%	400-800 at 75°C	270 – 300	An DOP free adhesion promoter for PVC plastisols mainly used in the automotive industry as underbody coating and bodysealer.	X
N-TEC 614	100%	300-800 at 75°C	220 – 260	N-TEC 614 is an DOP free adhesion promoter for PVC plastisols mainly used in the automotive industry as underbody coating and bodysealer.	X
N-TEC 640	100%	5000-6000 at 25°C	440 – 550	N-TEC 640 is an DOP free adhesion promoter for PVC plastisols mainly used in the automotive industry as underbody coating and bodysealer.	X

N-TECAMID ADHESION PROMOTOR is modified polyamidoamine PVC plastisol adhesion promoter intended for use in automotive sealants and underbody coatings. It is designed to provide adhesion to electrodeposition primers used in the manufacture of automobiles, trucks and buses.

N-PURTEC; Polyurethane Floor Coating

Like epoxy, polyurethane is a thermosetting polymer and considered a high performance coating. It is commonly known as urethane for short, though that it is technically incorrect.



N-PURTEC; solvent-free saturated polyester & polyether for PU-flooring

Product	Supply Form [%]	Viscosity [mPa.s]/23°C	Acid Value [mgKOH/g]	OH-Value [mg KOH/g]	Main uses and characteristics
E 1162	Solvent-free	15.000 – 20.000	≤ 3	43	In certain combinations, e.g. with E 1808, E 1800 the addition of E 1162 increases the toughness and resistance to wear and abrasion of the paint films. Such combinations can be used to coat furniture, floors and parquet.
P 1165	Solvent-free	3.000 – 4.000	≤ 2	150-170	A low viscous and solvent-free branched polyol with ester and ether groups and is mainly used for the formulation of solvent-free coatings, sealings and adhesives, automotive PU-underbody, in combination with modified polyisocyanates.
P 1230	Solvent-free	2.500 – 3.500	≤ 2	220-240	A low viscous and solvent-free branched polyol with ester and ether groups and is mainly used for the formulation of solvent-free coatings, sealings and adhesives in combination with modified polyisocyanates.
E 1800	Solvent-free	25.000 – 36.000	≤ 3	215	In combination with polyisocyanates, used in flexible two-component polyurethane coatings for wood substrates, parquet and plastics.
E 1200	Solvent-free	16.000 – 30.000	≤ 4	165	Slightly branched polyester polyol, in the formulation of flexible PU-coatings.
A 2241	45 in water	max. 25.000	pH= 7.0-9.0	135	Water emulsified hydroxylated for the production of isocyanate crosslinked exterior resistant two component top coats with exhibit long potlife, high gloss and good adhesion properties.
A 5125	42 in water	max. 2.000	pH= 7.0-9.0	82	A water emulsified hydroxylated for the production of isocyanate crosslinked two component top coats which exhibit long potlife and good adhesion properties formulated without organic solvents.





PRODUCTS WITH PRESPECTIVE

VARENA CHEMICAL is a global company in the intermediates, coating, adhesives, inks and composite and solid surface resins, thermoset compounds, gel-coats and niche specialties and specialty additives for coatings and inks.

VARENA CHEMICAL is known for its superior quality and impressive range of products and with its excellent distribution network it can provide first-class service to customers whatever their market. Customer Service and Technical Service teams are renowned for their customer focus, offering the best service even after products have left manufacturing.

The group strives to keep customers satisfied, assisting them in producing premium quality products every time they use its products.



Product innovation is important for the group's business and it's the reason for which it constantly works with customers to find solutions to problems.

Introducing new or improved products ensures that VARENA CHEMICAL continue not only to deliver what the market wants and needs, but also when it is wanted and needed.



THE SPECIALITY SUPPLIER FOR COATINGS; INKS; ADHESIVES & SOLID SURFACE