



Epoxy Waterborne Hardeners Portfolio

Today, the civil engineering and coatings industries are without any doubt convinced of the advantages of using waterborne epoxy systems: these systems are environment-friendly, they offer enhanced work comfort (less smell) and reduced toxicity for the applicators working in closed areas. They are not flammable, they allow for easy cleaning of the application tools with water. These systems also do exhibit excellent adhesion on concrete and on humid surfaces, and they can even be used on wet concrete.

However, formulators are still reluctant to switch to waterborne epoxy binders because they still encounter problems using those: waterborne systems tend to cure slowly; their application thickness is often limited; the final gloss of cured coatings is also known to be poor, because of an imperfect film formation process. Finally, the protective efficiency of aqueous epoxy formulations, in particular on metal, is regularly questioned and does not always attain the performances achieved by their non-aqueous counterparts.

In QR-Polymers, we believe we can offer waterborne curing agents which address these concerns. Through R&D and close cooperation with our customers, we are continuously improving and expanding our product range to meet today and tomorrow market requirements.

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Hardeners	Solids, % m/m	Viscosity @ 25 °C, mPa.s	Equivalent weight, g/Eq	Gel time ^a (100 g@23 °C), minutes	Uses and comments
Q-RIT 1051	50	30000 - 50000	210	120 - 180 ^a ≥ 6 hours ^b	Aqueous epoxy-polyaminoamide adduct without cosolvent, for concrete and metal coatings. Enables to emulsify epoxy resins in water. Good adhesion on metal and mineral substrates, including wet concrete. Use with liquid epoxy resin (phr 110, resin EEW 190) or with solid dispersion.
Q-RIT 1061	50	13000 - 23000	210	120 - 180 ^a ≥ 6 hours ^b	Universal aqueous epoxy-polyaminoamide adduct without cosolvent, for concrete and metal coatings. Enables to emulsify epoxy resins in water. Excellent adhesion on a variety of substrates. Dilutable to very low solids for a good impregnation of concrete. High flexibility, ideal for use on metal. Outstanding corrosion protection when combined with solid resin. Use with liquid epoxy resin (phr 110, resin EEW 190) or with solid dispersion.
Q-RIT 1071	55	18000 - 28000	230	60 ^a ≥ 6 hours ^b	Aqueous amine-adduct without cosolvent for general industrial coatings, floorings, epoxy-modified concrete, grouts. Formulation of thick systems. Very fast hardening and early water resistance. Use with liquid epoxy (phr 120, resin EEW 190) or with solid resin dispersion.
Q-RIT 1072	55	7000 - 10000	225	120 ^a ≥ 6 hours ^b	Slow version of Q-RIT 1071. Good gloss retention. Use with liquid epoxy (phr 120, resin EEW 190) or with solid resin dispersion.
Q-RIT 1075	40	15000 - 35000	415	90 ^a 120 ^b	Aqueous amine-adduct without cosolvent for metal and concrete coatings. Excellent water and salt spray resistance. Fast physical drying, full cure after 2-3 days. Low colour and high UV-resistance with good gloss retention. Use with liquid epoxy (phr 220, resin EEW 190) or with solid resin emulsion.

a with liquid resin, EEW 190 b with solid resin dispersion, EEW 450-560 (on solids)

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