

Q-RIT Solventfree and solventborne epoxy hardeners

| Hardeners | Solids (% m/m) | Viscosity @25°C (mPa.s) | HEW (g/Eq) | Gel time (minutes) (a) | Uses and comments |
|-----------------------------------|-------------------|-------------------------------|---------------|---------------------------|--|
| Accelerators | | | | | |
| Q-RIT 054 | 100 | 100-300 | - | - | 2,4,6-tris(dimethylaminomethyl)phenol. Accelerator for epoxy/polyamine and epoxy/polyamide systems. phr 5-15 |
| Amines and modified amines | | | | | |
| Q-RIT 118 | 100 | 5-20 | 32 | - | Long gel time at ambient cure and high Tg if heat-cured. For construction, paints, adhesives and composites applications. phr 17 (liquid resin, EEW 190) |
| Q-RIT 120 | 100 | 5-20 | 43 | 130-190 | Isophoronediamine (IPDA). Good heat resistance. Applications in construction, paints, composites and castings. phr 23 (liquid resin, EEW 190) |
| Q-RIT 122 | 100 | 5-10 | 34 | - | M-xylenediamine (MXDA). Applications in construction, paints and composites. phr 18 (liquid resins, EEW 190) |
| Q-RIT 124 | 100 | 10-20 | 43 | 10-25 | N-aminoethylpiperazine (N-AEP). Applications in construction, paints, adhesives and composites. phr 23 (liquid resin, EEW 190) |
| Q-RIT 125 | 100 | 5-10 | 21 | 25 | Diethylenetriamine (DETA). Applications in construction, paints, adhesives and composites. phr 11 (liquid resin, EEW 190) |
| Q-RIT 126 | 100 | 20-30 | 24 | 25 | Triethylenetetramine (TETA). Applications in construction, paints, adhesives and composites. phr 13 (liquid resin, EEW 190) |
| Q-RIT 128 | 100 | 20-60 | 27 | 26 | Tetraethylenepentamine (TEPA). Provides high Tg. Applications in construction, paints, adhesives and composites. phr 14 (liquid resin, EEW 190) |
| Q-RIT 130 | 100 | 5-15 | 60 | > 8h | Low molecular weight polyetheramine. Long pot-life, flexibility. Good impregnation. High filler loadings. For solventfree paints, floorings, mortars or adhesives. phr 32 (liquid resin, EEW 190) |
| Q-RIT 131 | 100 | 15-30 | 111 | > 8h | Polyetheramine, Mw 400. Long pot-life, flexibility, good impregnation. High filler loadings. For solventfree paints, floorings, mortars or adhesives. phr 58 (liquid resin, EEW 190) |
| Q-RIT 132 | 100 | 50-150 | 82 | - | Polyoxypropylenetriamine. Long pot-life. Provides flexibility and toughness. phr 43 (liquid resin, EEW 190) |

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| Q-RIT 154 | 100 | 20-80 | 90 | 15-20 | Modified cycloaliphatic polyamine. Low viscosity, good impregnation, high filler loadings. Fast curing. phr 47-50 (liquid resin, EEW 190) |
| Q-RIT 155 | 100 | 150-450 | 95 | 30 | Modified cycloaliphatic polyamine. Economical hardener. Benzyl alcohol-free. For adhesives, mortars and primers. phr 50 (liquid resin, EEW 190) |
| Q-RIT 163 | 100 | 18-48 | 40 | - | For use in composite materials (fiber reinforced laminates) or adhesives. phr 21 (liquid resin, EEW 190) |
| Q-RIT 164 | 100 | 35-65 | 39 | - | Faster than Q-RIT 163. For use in composite materials (fiber reinforced laminates) or adhesives. phr 20.5 (liquid resin, EEW 190) |
| Q-RIT 168 | 100 | 5-20 | 38 | 140-200 | Provides hardness, high Tg, excellent heat resistance. For use in construction, tank linings and composites materials. phr 20 (liquid resin, EEW 190) |
| <i>Amine and cycloaliphatic amine adducts</i> | | | | | |
| Q-RIT 304 | 100 | 250-500 | 115 | 40 | UV-resistance. Good mechanical and chemical resistance. For solventfree self-leveling and trowelable floorings, paints or adhesives. phr 60 (liquid resin, EEW 190) |
| Q-RIT 305 | 100 | 400-700 | 105 | 30-35 | UV-resistance. Good mechanical and chemical resistance. For solventfree self-leveling and trowelable floorings, paints or adhesives. phr 55 (liquid resin, EEW 190) |
| Q-RIT 306 | 100 | 550-850 | 115 | 25 | UV-resistance. Good mechanical, acid and solvent resistance. Faster than Q-RIT 305. phr 60 (liquid resin, EEW 190) |
| Q-RIT 315 | 100 | 200-500 | 115 | 30 | Salicylic acid-free. UV-resistance. Good mechanical, acid and solvent resistance. phr 60 (liquid resin, EEW 190) |
| Q-RIT 317 | 100 | 150-450 | 93 | 40 | Salicylic acid-free. Superior resistance to carbamation / waterspotting. Good colour stability, good chemical resistance. For solventfree self-leveling floorings, and paints. phr 50 (liquid resin, EEW 190) |
| Q-RIT 318 | 100 | 100-350 | 93 | 30 | Salicylic acid-free. Superior resistance to carbamation / waterspotting. Good colour stability, good chemical resistance. For solventfree self-leveling floorings, and paints. phr 50 (liquid resin, EEW 190) |
| Q-RIT 357 | 100 | 150-450 | 93 | 30-35 | Superior resistance to carbamation / waterspotting. Good colour stability, good chemical resistance. For solventfree self-leveling and trowelable floorings, and paints. phr 50 (liquid resin, EEW 190) |
| Q-RIT 358 | 100 | 350-550 | 93 | 20-25 | Superior resistance to carbamation / waterspotting. Good colour stability, good chemical resistance. For solventfree self-leveling and trowelable floorings, and paints. phr 50 (liquid resin, EEW 190) |

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| Q-RIT 369 | 100 | 300-550 | 90 | 19 | UV resistance. Good resistance to carbamation / waterspotting and to chemicals. For floorings, fibre reinforced composites and decorative table tops. phr 50 (liquid resin, EEW 190) |
| Q-RIT 369LE | 100 | Typically 600 | 90 | 45 | UV resistance. Low exotherm/low reactivity version of Q-RIT 369 for use in thick castings, river tables, decorative applications. phr 50 (liquid resin, EEW 190) |
| Q-RIT 380 | 100 | 1400-2400 | 75 | 8-10 | High reactivity, low temperature cure. Superior chemical resistance. Accelerator for other hardeners. Alternative to Mannich bases. For solventfree floorings. phr 40 (liquid resin, EEW 190) |
| Q-RIT 381 | 100 | 1000-4000 | 84 | 15-16 | Salicylic acid-free, benzyl alcohol-free. O VOC. Superior chemical resistance. Alternative to Mannich bases. phr 45 (liquid resin, EEW 190) |
| RD-0190 | 100 | Typically 800 | 93 | 30 | Benzyl alcohol-free. O VOC. Excellent waterspot resistance. For use in floorings and other construction applications. phr 50 (liquid resin, EEW 190) |
| Amidoamines | | | | | |
| Q-RIT 431 | 100 | 400-800 | 75 | 55 | For solventfree paints, self-leveling and trowelable floorings, mortars, patching compounds and adhesives. Can be used on green concrete. phr 40 (liquid resin, EEW 190) |
| Q-RIT 436 | 100 | 500-1200 | 90 | 70-80 | For solventfree self-leveling and trowelable floorings, mortars, patching compounds, adhesives and encapsulation systems. Can be used on green concrete. phr 47-50 (liquid resin, EEW 190) |
| Q-RIT 439 | 100 | 150-450 | 95 | 150 | Low viscosity/long potlife curing agent for solventfree concrete primers, repair mortars, crack injection, castings, adhesives and tiles joints. Can be used on green concrete. phr 50 (liquid resin, EEW 190) |
| Polyamides | | | | | |
| Q-RIT 515X70 | 70 | 800-1500 | 340 | Several hours | Very good resistance to corrosion and chemicals. For solventborne anticorrosion paints. Excellent flexibility and adhesion. Use with solid epoxy resin (solution). |
| Q-RIT 525 | 100 | 10000-14000 | 130 | 90 | Good flexibility and adhesion, good resistance to corrosion and to chemicals. For adhesives and solventborne or solventfree anticorrosion paints. Use with liquid or solid epoxy resins (solution). |
| Q-RIT 541 | 100 | 1000-3000 (b) | 95 | 140 | Good flexibility and adhesion, good substrate wetting, good temperature resistance. For adhesives, solventborne anticorrosion paints and concrete repair. phr 50 (liquid resin, EEW 190) |
| Polyamide adducts | | | | | |

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| Q-RIT 622XB70 | 70 | 4000-10000 | 350 | Several hours | Outstanding flexibility, resistance to humidity and corrosion. Cures at up to 70% relative humidity. For solventborne anticorrosion paints. Use with solid epoxy resin (solution). |
| Q-RIT 623XB60 | 60 | 800-2400 | 520 | Several hours | Outstanding flexibility, resistance to humidity and corrosion. Cures at up to 80% relative humidity. For solventborne anticorrosion paints. Use with solid epoxy resin (solution). |
| Q-RIT 635XB80 | 80 | 2000-8000 | 190 | Several hours | General purpose high-solids curing agent for heavy duty coatings. Low temperature/high humidity cure. Use with high-solids or solid resin (phr 40, resin EEW 450-500). |
| Q-RIT 651 | 100 | 500-1500 | 115 | 40-45 | Good substrate impregnation, outstanding adhesion to humid substrates and very good corrosion protection. For solventfree concrete primers, coatings and adhesives. phr 60 (liquid resin, EEW 190) |
| Q-RIT 653 | 100 | 250-500 | 115 | 30-40 | Good substrate impregnation, outstanding adhesion to concrete and to humid substrates. Very good corrosion protection. For solventfree concrete coatings, concrete repair and high-solids primers. phr 60 (liquid resin, EEW 190) |
| Q-RIT 655 | 90 | 2000-6000 | 190 | Up to 2 hours | Excellent flexibility, good humidity and corrosion resistance. Adhesion on humid concrete. Underwater cure. For high-solids anticorrosion coatings and adhesives. phr 100 (liquid resin, EEW 190) |
| Q-RIT 657 | 100 | 1500 - 4000 | 125 | 80-90 | Low viscous. Outstanding adhesion to concrete. For high-solids or solventfree anticorrosion coatings, sealers and coatings for concrete. phr 60-80 (liquid resin, EEW 190) |
| Q-RIT 661 | 100 | 800 - 2000 | 130 | 30-35 | Very fast and low viscous. For high-solids primers, industrial or maintenance paints, concrete sealers, adhesives and putties. phr 60-80 (liquid resin, EEW 190) |

(a) with a liquid resin (EEW 190), 100 g mix, measured @23°C (b) measured @ 40°C