



DENACOL™ Series Characteristics and Applications

DENACOL™	Characteristics	Applications
EX-612 EX-614, EX-614B EX-622	Multifunctional epoxy compound. Highly reactive (even at low temperatures). Have high crosslink density. EX-614B is freely soluble in water.	Fiber and paper processing, adhesive, adhesion promoter, crosslinker, insolubilizer for aqueous resin, paint
EX-512, EX-521, EX-421	Aqueous/multifunctional epoxy compound. Highly reactive.	Fiber and paper processing, adhesive, adhesion promoter, crosslinker, paint
EX-411	Multifunctional epoxy compound. Gives heat-resistance and flexibility.	Synthetic resin modifier
EX-321	Multifunctional epoxy compound. Gives heat-resistance and flexibility.	Epoxy resin diluent, adhesive, synthetic resin modifier, paint
EX-313, EX-314	Our most well-known water-soluble epoxy compounds. Highly reactive and suitable for any purpose. EX-313 is freely soluble in water.	Fiber and paper processing, adhesive, adhesion promoter, crosslinker, insolubilizer of water-soluble resin, epoxy resin diluent, paint, stabilizer
EX-201, EX-211, EX-212	Low-viscosity difunctional epoxy compound. EX-201 has high heat resistance.	Epoxy resin diluent/modifier, electrical, molding, paint
EX-810, EX-811, EX-851	Soluble in water, low-viscosity, highly reactive, and has high crosslink density.	Fiber/paper processing, adhesive, adhesion promoter, crosslinker, insolubilizer of water-soluble resin
EX-821, EX-830, EX-832, EX-841, EX-861	100% water-soluble, relatively low reactivity. Provides hydrophilic properties and flexibility.	Fiber/paper processing, crosslinker, insolubilizer for water-soluble resin
EX-911, EX-920, EX-931	Provides flexibility, impact resistance, and expansibility. Has relatively low reactivity.	Fiber/paper processing, sealant, crosslinker, insolubilizer of water-soluble resin
EX-111	Has highly reactive double bonds and epoxy groups.	Epoxy resin diluent, fiber treatment
EX-121, EX-141	Low-viscosity and has high compatibility with a variety of synthetic resins and epoxy resin.	Epoxy resin diluent, stabilizer
EX-145, EX-146, EX-192	Low-viscosity and less irritating than EX-121 or EX-141. EX-145 provides hydrophilic properties.	Epoxy resin diluent, paint
EX-721	Low-viscosity, highly reactive glycidyl ester compound.	Synthetic resin modifier, electric
EX-147	Low-viscosity and reactive flame retardant.	Flame-resistant
EX-171	Monofunctional epoxy compound with a hydrophilic group and water-repellent group. 100% water-soluble.	Fiber treatment
EX-252	Has good weather resistance.	Paint
EX-711, EX-731	Powder epoxy compound. EX-731 is an imide epoxy with good heat resistance.	Synthetic resin modifier
EM-160	Emulsion of novolac epoxy resin with good heat resistance	Adhesive