We create chemistry

Acrodur® POWER 4444 X

Chemical Nature **Proprietary acrylic dispersion. Thermoplastic binder for composite applications.**

Properties

Typical Properties	Solids content	%	~ 48
	pH value		~ 3.5
	Viscosity at 23 °C (Brookfield RV, Spindle #2, at 20 rpm)	cps	< 400
Other properties of the dispersion	Density	g/cm³	approx. 1.1
	Freeze/thaw resistance		not stable
	Dispersion type		anionic
Properties of the film	Glass transition temperature T_g (DSC)	°C	ca. 96
	Appearance		clear stiff
	Surface		non-tacky

Application

Features

Acrodur POWER 4444 X is an aqueous dispersion that has been developed for use as a thermoplastic binder for nonwoven composite applications, especially composites made via cold molding. It can be used to bond wood fibers and bast fibers such as hemp, flax, sisal and jute, mineral fibers such as glass wool and rock wool and synthetic fibers such as glass, carbon, nylon and polyester.

All users are encouraged to determine the suitability of Acrodur POWER 4444 X for their own particular applications.

Processing

Acrodur POWER 4444 X can be applied to nonwoven substrates via foam, saturation, or roll coating.

Acrodur POWER 4444 X can be applied at its original concentration. In order to increase the depth of penetration, Acrodur POWER 4444 X can be diluted with water prior to application.

Prior to cold tool forming this product, it is recommended that the substrate be heated with contact heat to a temperature between 150 – 175 °C to ensure best mechanical performance, heat resistance and surface finish. Application, fiber type, composition and processing equipment will effect cycle time and trials should be conducted to determine optimal production processing conditions.

Additives such as surfactants (e.g., APG® 325 N), pigments (e.g., Xfast® Black 0066), flame retardants and other polymer dispersions may be added in order to adjust the performance of Acrodur POWER 4444 X.

Safety

General The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Safety Data Sheet All safety information is provided in the Safety Data Sheet for Acrodur POWER 4444 X.

Important

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