DE NEEF® Soil PURe Data Sheet

Product Description

DE NEEF® Soil PURe is a hydrophobic polyurethane that, when used alone or with DE NEEF® Soil Cat PURe, is designed to increase the bearing capacity of permeable soil. In its uncured form, DE NEEF® Soil PURe is a blackish-brown nonflammable liquid. When it comes in contact with water, the grout slightly expands and, depending on temperature and amount of accelerator (DE NEEF® Soil Cat PURe) used, quickly cures to a very dense open cell foam that is essentially unaffected by corrosive environments and micro organisms.

Product Advantages

- Free Foam Expansion up to 3 times
- Contains no volatile solvents
- Very high strength with no creep
- Very low viscosity for permeation into tight soils
- Controlled reaction time

Product Applications

- Stabilizing soil beneath slabs and roadways
- Confinement of hazardous materials in soil
- Creating below grade cut-off curtain wall

Packaging & Handling

DE NEEF® Soil PURe:

5 gallon metal pail
50 gallon metal drum

DE NEEF® Soil Cat PURe:

25 oz. metal cans

DE NEEF® Soil PURe is sealed under dry nitrogen because it is sensitive to moisture, and should be stored in original containers in a dry area. Storage temperature must be between 40°F and 90°F. Once the packaging has been opened, the useful life of the material is greatly reduced and should be used as soon as possible. Shelf life: 2 years.

Reaction Times

T	% CAT	END REACTION	FOAM FACTOR
40°F	0.5	14’30”	1V
	1.0	6’30”	2V
	1.5	5’00”	3V
	2.0	4’10”	3V
	2.5	2’46”	3V
50°F	0.5	12’06”	1V
	1.0	5’30”	2V
	1.5	4’30”	3V
	2.0	3’40”	3V
	2.5	2’40”	3V
60°F	0.5	11’30”	1V
	1.0	5’00”	2V
	1.5	4’00”	3V
	2.0	3’10”	3V
	2.5	2’30”	3V
68°F	0.5	10’50”	1V
	1.0	4’50”	2V
	1.5	3’50”	3V
	2.0	2’50”	3V
	2.5	2’20”	3V
77°F	0.5	8’46”	3V
	1.0	4’30”	3V
	1.5	3’25”	3V
	2.0	2’30”	3V
	2.5	2’06”	3V
86°F	0.5	8’00”	3V
	1.0	4’20”	3V
	1.5	3’05”	3V
	2.0	2’20”	3V
	2.5	2’00”	3V
95°F	0.5	7’35”	3V
	1.0	3’50”	3V
	1.5	3’05”	3V
	2.0	2’10”	3V
	2.5	1’56”	3V

Installation Guidelines

- Warning: Consult the Technical Data Sheets and SDS before using.
- Installation Instructions: For detailed installation instructions refer to the DE NEEF® technical bulletin for your application.
- Catalyst: Shake catalyst can 2-3 minutes. Pour the desired amount of DE NEEF® Soil PURe into a clean dry pail. Measure the appropriate amount of DE NEEF® Soil Cat PURe (refer to the Reaction Times section of this data sheet for the desired set time) and pour it into the pail. Stir until adequately mixed.
- Injection: During injection the grout will follow the path of least resistance. When the material has stopped penetrating it will continue to expand against the limits of the confined space.
- Extreme conditions: For application procedures in extreme temperatures and specific environments or equipment recommendations call DE NEEF® Technical Service.
- Cleaning: Clean all tools and equipment which have been in contact with the resin with DE NEEF® Washing Agent before resin has cured. Products should be disposed of according to local, state, and federal laws.

Limitations

Low temperatures will significantly affect viscosity. If site temperatures are extremely low, heat bands or heated water baths may be used on the pails before and during installation to maintain the product's temperature. Avoid splashing water into open containers, as the material is water activated. Avoid exceeding 90˚F when warming.

CAUTION: PH NOTICE. Water used to activate PURe Grouts must be in the pH range of 3-10 for optimum foam quality

Health and Safety

Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest. Refer to Safety Data Sheet (SDS) for detailed safety precautions. SDS's can be obtained from GCP Applied Technologies or from our web site at gcpat.com. FOR EMERGENCIES, CALL CHEMTREC 1-800-424-9300.

Properties

DE NEEF® SOIL PURE RESIN		
Solids	100%	ASTM D2369
Viscosity	50 cp at 77°F	ASTM D2196
Color	Black-brown liquid	
Density	1.12 g/cm^3	ASTM D4659
Flashpoint	284°F	ASTM D93
Corrosiveness	Non-corrosive	
DE NEEF® Soil Cat PURe		
Viscosity	15 cp at 77°F	ASTM D2196
Color	Clear liquid	
Flashpoint	221°F	ASTM D93
DE NEEF® Soil PURe Cured		
Density confined	1.00 g/cm^3	ASTM D3574
Compressive strength	1813 psi	confined w/sand
Flexural strength	290 psi	confined w/sand

Phthalate free- no phthalate-based plasticizers
Unregulated for transport- no hazmat shipping
Reformulated TDI free-all MDI based technology.
environmentally friendly-NSF/ANSI 61 approved.

Soil PURe when combined with Soil Cat PURe is certified by WQA to NSF/ANSI 61 for materials safety only, as verified and substantiated by test data. Please refer to WQA website (www.wqa.org) for use ratios and limitations.

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

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