AP LIFT 440

TWO COMPONENT, STRUCTURAL POLYURETHANE FOAM

TECHNICAL DATA

Description

AP Lift 440 is a two-component, high-strength, high-density, hydro-insensitive structural polyurethane foam. Unconfined density is 4 lbs/cubic foot (64 kg/cubic meter).

Uses

- Stabilizing soil
- Lifting concrete slabs
- Filling voids and annular spaces
- Supplemental sinkhole remediation

Advantages

- High-strength
- Low-viscosity
- Works in wet environments - displaces water
- Bonds with soil and concrete
- Traffic ready in 15 minutes
- Closed cell

AP Lift 440 Properties Cured		
Density (Cured Product)	4 ± 0.25 lb/ft³ (64.07 ± 4.00 kg/m³)	ASTM D1622
B-Side Specific Gravity	1.03	-
WPG of B-Side	8.58 lb/gal (1.03 g/mL)	-
A-Side Specific Gravity	1.23	-
WPG of A-Side	10.25 lb/gal (1.23 g/mL)	-
Viscosity @ 110°F	200 cP (200 mPa·s)	ASTM D4878
Cream Time @ 105°F	2 seconds	ASTM D7487
Tack Free Time @ 105°F	22 seconds	ASTM D7487
Rise Time @ 105°F	27 seconds	ASTM D7487
Free Rise Compressive Strength	80 psi or 11,500 psf (552 kPa)	ASTM D1621 / D1622
Free Rise Tensile Strength	90 psi or 13,000 psf (621 kPa)	ASTM D638
Free Rise Shear Strength	40 psi or 5,760 psf (276 kPa)	ASTM C 273
Closed Cell Content	85.2%	ASTM D6226
Flexural Strength	130 psi or 18,700 psf (896 kPa)	ASTM D790
90% Full Strength	15 minutes	-
Shrinkage	Negligible	ASTM ASTM D1042 / D756
Unconfined Expansion	18x	-

Confined Compressive Strength 1.5x	165.3 psi or 23,800 psf (1,140 kPa)	ASTM D1621 / D1623
Confined Shear Strength 1.5x	82.6 psi or 11,900 psf (570 kPa)	ASTM D732
Confined Compressive Strength 2x	193.2 psi or 27,800 psf (1,330 kPa)	ASTM D1621 / D1623
Confined Shear Strength 2x	96.6 psi or 13,900 psf (666 kPa)	ASTM D732
Confined Compressive Strength 3x	216.1 psi or 31,100 psf (1,490 kPa)	ASTM D1621 / D1623
Confined Shear Strength 3x	108.1 psi or 15,600 psf (745 kPa)	ASTM D732
NY-Panel Result	PASS	92.4% Density Retention
Safe for Contact with Drinking Water	YES	NSF/ANSI/CAN 61 & 372

Storage and Shelf Life
Store between 50–80°F (10–26°C). Shelf life is 24 months in unopened containers stored within this temperature range.

Estimating Quantities
Consumption has to be assessed on site and is influenced by the amount of water leaking, thickness of the concrete.

Application Temperature and Equipment
For optimal performance, set temperatures to 100°F (38°C) for A-side, 110°F (43°C) for B-side, and 105°F (41°C) for hose heat. Refer to the proportioner or PolyBadger™ system guides for more information.

Application and Safety Precautions
When applying Alchatek polyurethane systems, always wear appropriate personal protective equipment and avoid contact with eyes and skin. Review the Safety Data Sheet at Alchatek.com before use. Excessive foam build-up can result in degraded material properties or, in rare cases, fire, due to high internal temperatures within the material. For step-by-step procedures and typical project setups, see the Deep Lock® Soil Stabilization, Slab Lifting, and Void Filling application guides. For safety and application guidance, contact the Alchatek Technical team.

Supplier Details
Alchatek
4508 Bibb Blvd
Tucker, GA 30084
T: (404) 618-0438

Emergency Phone Numbers
Call CHEMTREC
Day or Night
1-800-424-9300
+1 703-527-3887

Limited Warranty
Alchatek warrants this product to be free from manufacturer's defects and to meet all published properties on current Technical Data Sheet for a period of one year if used according to published instructions and within the shelf life. The user is responsible for determining suitability for intended use and assumes all risk. No other warranties expressed or implied shall apply including any warranty of merchantability or fitness for a particular purpose. Purchaser's sole remedy is limited to the purchase price or product replacement exclusive of cost of labor or other materials.

Latest Information
Before each use read latest Technical Data Sheets, Safety Data Sheets, and instructions available at Alchatek.com. Nothing contained in any Alchatek materials or verbal instruction relieves the user of the obligation to read and follow all usage instructions and warnings for each product contained in the latest Technical Data Sheets and Safety Data Sheets. All information given by Alchatek about Alchatek products and procedures is given in good faith based on our current experience level and knowledge when materials are properly stored, handled, and applied. Jobsite conditions always vary, and for this reason Alchatek assumes no liability for the provision of such information or instructions. Neither shall any legal relationship be created by the provision of such information.

FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. READ MATERIAL SAFETY DATA SHEET PRIOR TO EVERY USE.

Properties will vary depending on application conditions.

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