



Z-LIFT/SHORE 4# AT-840

Two-component structural
polyurethane foam

DESCRIPTION

Z-LIFT/SHORE 4# is a two-component, polyurethane foam used to fill voids, underseal and lift concrete slabs and foundations and provide a suitable polymer for soil stabilization/shoring. This closed-cell, hydro-insensitive, high-density structural foam can be used for compaction grouting of soil and for filling voids behind pipes, walls, manholes, and other structures. There are multiple reaction times available for this material, please refer to the product specific performance in the table included herein

APPLICATIONS

- Concrete highways
- Airport runways and taxiways
- Railroad track slabs
- Bridge approach slabs
- Concrete slabs (warehouse and industrial floors, foundations garage floors, sidewalks, and patios)
- Concrete pipes
- Unconsolidated soil
- Utility vaults

ADVANTAGES

- Quick set time
- Hydro insensitive
- Bonds with soil and concrete
- Develops hydraulic lift to level and stabilize concrete slabs and foundations
- Lower cost alternative vs replacement
- Lighter weight than mud jacking Lift can be executed to precise measures

PACKAGING

- 10 Gallon Kit (2 ea 5 Gallon Buckets)
- 110 Gallon kit (2 ea 55 Gallon Drums)
- 550 Gallon Kit (2 ea 275 Gallon IBC)

TECHNICAL INFORMATION

Physical properties at 73°F (23°C) - Liquid Properties will vary depending upon site conditions, application method, mixing method and equipment, material temperature, and curing conditions.

SOLIDS CONTENT: 100%

VISCOSITY: A component 270-280 cps, B component 800-1200 centipoise

Note: Viscosity scale for ZIIS products: 50 and under= super low, 51-100= very low, 101-400= low, and 401-1000= moderate viscosity.



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TESTING DATA

| Physical Properties - Cured | Results | Test Method |
|--------------------------------------|---------------------------|-------------|
| Compressive Strength | 95-105 psi | ASTM D-1621 |
| Compressive Modulus | 1800 psi | ASTM D-1621 |
| Density | 4 lbs./cubic ft (=/- .25) | ASTM D-1622 |
| Tensile Strength | 100-110 psi | ASTM D-1623 |
| Shrinkage | Negligible | ASTM D-1042 |
| Water Absorption lbs/ft ² | 0.10 | ASTM D-2842 |
| Closed Cell Content % | >90.0 | ASTM D-6226 |
| Shear Strength | 35-40 psi | ASTM C-273 |
| Flexural Strength | 55-60 psi | ASTM D-790 |
| Shear Modulus | 550 | ASTM C-273 |
| Flexural Modulus | 810 psi | ASTM D-790 |

| Reaction Times | | | | |
|----------------------|--------|--------|---------|---------|
| Product | *840-3 | *840-8 | *840-12 | *840-20 |
| Cream Time (sec) | 3-4 | 8-10 | 10-12 | 18-20 |
| Rise Time (sec) | 11-12 | 20-22 | 24-26 | 75-85 |
| Tack Free Time (sec) | 9-10 | 14-18 | 20-24 | 50-70 |
| 90% Strength (min) | 15 | 20 | 25 | 30 |

| Dimensional Stability (ASTM D-2126) | |
|-------------------------------------|------|
| Volume Change @ -40°F | < 2% |
| Volume Change @ +200°F | < 2% |

DIRECTIONS FOR USE

Mixing Ratio: A:B 1:1 by volume

Material Preparation: Store material overnight to precondition to 70-80°F (21-27°C) prior to use. Pre-mix the “B” component prior to combining. “B” component contains chemicals that settle over time. Failure to properly pre-mix will result in uncured or improperly cured material. Dispense using a two-component proportioner pump with heated hoses and impingement-style gun. Call Utah Foam Products for details.

Limitations: Cold temperatures will slow down reaction time and increase viscosity. pH below 3 or above 10 may adversely affect foam properties. Adjustments for altitude density may also be required.



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STORAGE & CLEAN UP

Storage: Store between 50 and 75F to minimize container pressure. Take care to open containers, loosen closure to relieve pressure slowly before fully opening. Shelf Life: 1 year from date of manufacture in unopened containers properly stored. Protect from moisture.

Clean Up: Clean off of skin with soap and water. To clean uncured resin from the gun, flush with acetone.

ENVIRONMENTAL PROTECTION

Cured material is environmentally safe. Dispose of in according to appropriate regulations. Clean up any spilled catalyzed liquid material and add a small amount of water to cure unreacted material.

HEALTH & SAFETY

Safety: Use OSHA-approved personal protective equipment (PPE), including safety glasses, gloves and confined space equipment/ procedures if applicable. Avoid skin contact; do not ingest. See SDS for complete safety precautions. For professional use only.

FIRST AID

Eye Contact: Immediately flush with large amounts of water. Seek medical attention.

Inhalation: Move to fresh air if symptoms occur. If breathing is difficult, seek medical attention.

Ingestion: Seek medical attention immediately.

Skin Contact: Wipe off contaminated area and wash with soap and water immediately.

MANUFACTURING

Products are manufactured by ZIIS America in the U.S.A. under strict quality assurance practices at our Salt Lake City, UT plant.

SHIPPING

Shipping Class: Motor Freight Class 60 Hazard
Classification: Not Hazardous

WARRANTY & DISCLAIMER

ZIIS America warrants its products to be free from manufacturing defects and that products meet the published characteristics when tested in accordance with ASTM and ZIIS America standards. No other warranties by ZIIS America are expressed or implied, including no warranty of merchantability or fitness for a particular purpose. ZIIS America will not be liable for damages of any sort resulting from any claimed breach of warranty. ZIIS America's liability under this warranty is limited to replacement of material or refund of sales price of the material. There are no warranties on any product that has exceeded the "shelf life" or "expiration date" printed on the package label.