

**MINING / CONSTRUCTION / TUNNELING / GEO-TECHNICAL**

# TEKFOAM

## PUMPABLE FOAMED CEMENT FOR CAVITY FILLING

### DESCRIPTION

TekFoam is a pumpable foamed cement. Supplied as a cement powder, forms a low-density foam when combined with the proper amount of air and water. TekFoam is specially designed for use in the Minova placer unit. TekFoam cement is a non-combustible, void-filling, structural cementitious foam approximately (0.32 sg) when combined with the proper amount of air and water in the specially designed Tekplacer unit. Normally, four 45 lb bags/yd<sup>3</sup> (5.23 bags/m<sup>3</sup>) are used TekFoam mix is typically pumped 400 feet (121.9 m) through a 1-inch (25.4 mm) diameter hose and farther through a larger diameter hose. The 20 psi (0.1379 MPa) product begins to gel in minutes, forming a non-toxic, non-combustible product weighing approximately 540 lbs/yd<sup>3</sup> (320.4 kg/m<sup>3</sup>), and because of its rapid strength gain, is firm enough to walk on in minutes. Consult your local Minova representative or see our product brochure (Pumpable Cement Grouts) for additional information.



### USES

TekFoam is specially designed for the filling of cavities on longwall sections, for back filling over arches to provide contact against a roof, filling a cavity to prevent methane build-up, and cushioning against falling debris over a false roof.

### ADVANTAGES

- Fast – Pumping rate of over 100 yds<sup>3</sup> (76.46 m<sup>3</sup>) per shift is possible; convenient one bag blend
- High yield – Less material to handle; four 45 lb (20.41 kg) bags will yield 1 yd<sup>3</sup> (0.76 m<sup>3</sup>) - less costly than typical foamed cements
- Simple – Tekplacer unit meters in proper amounts of air and water while pumping foam to the site.

### APPLICATION METHOD

To calibrate the placer unit and to make adjustments to the water supply, it is highly recommended that a consultant from Minova, or an authorized contractor, be on site to advise mine personnel, especially during the pumping process.

Build a form to hold the foam in the desired location. Formwork can be of light-weight construction unless the foam is also to provide roof support. Tekfoam cement can bridge gaps over 1" (25.4 mm) wide.

Run at least 200 ft (60.7 m) of 1" (25.4 mm) hose from the pump to the cavity area.

In the case of a cavity that needs to be filled remotely, install two 3" (76.2 mm) diameter or greater stand pipes into the cavity. One pipe needs to go into the highest point of the cavity, while the other pipe can be lower.

Run the 1" (25.4 mm) discharge line up the lower stand pipe.

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Hook up fresh water at a rate of 15 gpm (56.8 L/m) at 50 psi (0.3447 MPa), and AC power, to the placer. Twenty-four gallons (90.8 L) of water per 100 lbs (45.4 kg) of Tekfoam powder are required.

Pump the Tekfoam mix into the cavity until it emerges from the higher stand pipe.

**TekPlacer**

Made in the USA by Minova, Multi-use Tekplacer unit is used to transfer several of Minova’s cementitious products: TekSeal, Tekcrib, and TekRok SCR.

**Placer** – Made in the USA by Minova; Multi-use placer (Tekplacer) unit is used to transfer several of Minova’s cementitious products: Tekfoam, Tekcrib, Tekrok, Tekrok SCR

Motor: 20 hp AC; Full load amps - 21 @ 460V, 18 @ 575V; Cable Size: normally #6. Develops 200+ psi, and typically pumps Tekseal® cement 1,000 feet through a 1 1/4-inch hose. For greater pumping distances, please contact your local Minova representative. Requires water supply @ 50 psi without the optional water heater, 100 psi with heater. Dimensions: 3’6” x 2’3” x 11’9”; Wgt: 1,700 lbs;

Unit capacity: 17.5 yds<sup>3</sup>/hour.

**Water heater** – Required in some applications to bring the water temperature above 60°F. Full load amps - 90 @ 460V, 110 @ 575V; Cable Size: normally #2; Dimensions: 3’2” x 3’4” x 3’10”; Wgt: 1,700 lbs when full.

**SAFETY INSTRUCTIONS AND LIMITATIONS**

Observe the usual precautionary measures for handling cements, see TekFoam SDS.

**PACKAGING and TRANSPORTATION**

TekFoam is available in 45 lb (20.41 kg), 3-ply bags with 1 polyethylene layer, 48 bags per stretch-wrapped pallet.

**STORAGE AND SHELF LIFE**

Shelf life is at least 12 months in a dry, cool place.

**DISPOSAL**

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of material in accordance with all applicable federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

**APPROVALS AND CERTIFICATES**



an ISO 9001:2015  
Quality Management System Certified Company.

**DISCLAIMER**

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## **ADDITIONAL DOCUMENTATION**

Started more than 135 years ago, Minova is a global manufacturer and supplier of chemical and mechanical earth control products and support equipment. With manufacturing plants on five continents and operations in more than 25 countries, Minova is an industry-leading provider of ground support solutions for the underground mining, construction and energy industries.

If further information is required consult Minova Americas website: [www.minovaglobal.com](http://www.minovaglobal.com).

- TekFoam Safety Data Sheet (SDS)
- Strata Injection and Cavity Fill Chemicals – Minova Master Product Catalogue
- Injection Accessories – Minova Master Product Catalogue
- Minova Pumpable Cement Grouts Technical Data Sheet (TDS)

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