

# CEMENTITIOUS GROUTS



## Tekfoam

### *Pumpable Foamed Cement for Cavity Filling*

#### Uses

Tekfoam cement is a foamed mix for use in cavity filling and backfilling. Although the primary use for Tekfoam cement is the filling of cavities on longwall sections, other popular uses include backfilling over a set of arches to provide contact against the roof, filling a cavity to prevent methane build-up, and cushioning against falling debris over 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
- **Simple** – Placer unit meters in proper amounts of air and water while pumping the foam to the site
- **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>) - the result is less costly than typical foamed cements
- **Safety** – Roof falls and cavities can be supported safely; low causticity absolutely minimizes the possibility of cement burns

#### Description

Tekfoam cement is a non-combustible, void-filling, structural cementitious foam. Supplied as a powder, the cement forms a low-density foam (0.25 to 0.35 sg) when combined with the proper amount of air and water in the specially designed placer 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" (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 30 to 60 minutes.

Consult your local Minova representative for additional application information.

#### Packaging

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

#### Shelf Life

One year in dry conditions.

#### Instructions for Use

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.

1. 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.
2. Run at least 200 ft (60.7 m) of 1" (25.4 mm) hose from the pump to the cavity area.
3. 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.
4. Run the 1" (25.4 mm) discharge line up the lower stand pipe.

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# Tekfoam

5. 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.
6. Pump the Tekfoam mix into the cavity until it emerges from the higher stand pipe.

**Placer** - Made in the USA by Minova; Multi-use placer unit is used to transfer several of Minova's cementitious products: Tekseal®, Tekcrib, Tekrok, Tekrok SCR

Motor: 15 hp (11.2 kW) AC; Full load amps - 21 @ 460V, 18 @ 575V (permissible unit available)

Cable Size: normally #6

Develops 200+ psi (1.379+ MPa), and typically pumps Tekfoam cement 1,000 ft (304.8 m) through a 1 1/4" (31.75 mm) hose. Requires 15 gpm (56.8 L/m) @ 50 psi (0.3447 MPa) without the optional water heater, 100 psi (0.6895 MPa) with;

Dimensions: 3'6" x 2'3" x 11'9" (1.07 m x 0.69 m x 3.58 m)

Wgt: 1,700 lbs (771 Kg)

Unit Capacity: 17.5 yds<sup>3</sup>/hour (13.4 m<sup>3</sup>/hr)

**Water Heater** - Required in some applications to bring the water temperature above 60°F (15.6°C); Full load amps - 90 @ 460V, 110 @ 575V.; Cable Size: normally #2; Dimensions: 3'2" x 3'4" x 3'10" (0.97 m x 1.02 m x 1.17 m);

Wgt: 1,700 lbs (771 kg) when full

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## Important Note: Warranty

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