

PEX Expandable SHEET

Product Description

Our Pre-Tensioned Unit is a mechanism used for ground support in underground mining operations. It works in conjunction with wood packs, which are employed to prevent rock falls within underground work areas. The pre-tensioned unit is placed after reaching three-quarters of the total height of the structure, ensuring that the wood pack elements cover the entire area. The base where the unit will be installed must be shaped like a bed so that, once water is injected, it inflates evenly across its entire surface, applying uniform pressure throughout the area.



Advantages

The pre-tensioned unit is manufactured in various sizes and shapes, such as rectangular, square, oval, and triangular.

- ❖ Provides support of up to 160 tons
- ❖ Easy to install
- ❖ Converts timber into an active support system
- ❖ Not susceptible to blasting vibrations due to high confinement pressures
- ❖ Adapts well to pillar recovery
- ❖ Immediate load-bearing force in the supported area
- ❖ Uses a high-pressure pump
- ❖ Quick installation

Chemical Composition and Mechanical Properties

Análisis Típico en %

Standard / Grade	Carbon (C) %	Phosphorus (P) %	Sulfur (S) %	Silicon (Si) %	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation %
ASTM A36	0.26	0.04	0.05	0.40	250	400	20

Technical Data

Inflation Pressure	12 bares
Inflation Deformation	10 cm
Weight	10 kg
Dimensions	1 x 1 mts / 0.5 x 0.5 mts

