

# PUMPABLE CRIBS.



# SECURING PERFORMANCE. TOGETHER.

Minova is an international producer of high-performance ground support products for the mining, construction and energy industries.

Our products are engineered to provide safety, efficiency and certainty to your operations, wherever you are.

We provide tailored solutions for a variety of applications, whatever it takes.

We can help you increase project performance and overcome application challenges through a wide range of products that are secure in any conditions, wherever you need to go.

# 1,500

pumpable cribs  
installed



Installed pumpable crib

## 3.8 METRE CRIBS COMPLETELY INSTALLED IN UNDER 15 MINUTES

# PUMPABLE CRIBS.

The Minova Pumpable Crib system is a surface to seam system developed to provide enhanced standing and roof support in underground mining.

The system provides a more productive means to install gate road support in longwall mining operations, providing increased safety for operational personnel and more cost effective mine production.

The system uses our patented two component grout Tekpak P delivered down a bore hole or portal. Over 1,500 cribs installed to date. Product pumped over 3km from the borehole to underground. Ongoing testing is allowing us to expand our range offering our customers pumpable cribs to best suit their requirements.

## KEY FEATURES

- Simplified installation process ensuring the installation of many cribs per shift
- Increased speed of installation with 3.8m cribs completely installed in under 15 minutes
- Cribs installed in one pass with our rapid gelling Tekpak P
- Improved pressurisation to the roof
- Improved stability of the crib during filling
- Reduced worker exposure to manual handling and other hazards



## TEKPAK P

Minova's patented two component grout which, when mixed together, rapidly reacts to produce a load bearing crib. Consists of Tekcem, a high volume output grout, and Tekbent. Tekcem is mixed using a semiautomated batching plant. Highly accurate electronic monopumps deliver both components at an exact 1:1 ratio.

## ADVANTAGES

Superior suspension agents improve pumpability and ensure consistency

High volume with typical output of 350 kg of powder per m3

Long distance pumping, up to 5 km

3 day pumping life reducing downtime associated with pipe blockages and flushing out

Product excellence - crib design enables over 400 tonnes load bearing capacity

Quality assurance – quality controlled application



## BATCHING PLANT

We use a semi-automated batching plant for mixing of Tekcem, and a highly accurate electronic monopumps to deliver the Tekcem and Tekbent at the exact 1:1 ratio down the borehole and to the pumpable cribs underground.

## ADVANTAGES

Precise batching of Tekcem through electronic load cells

Precise delivery of Tekcem and Tekbent through electronic monopumps

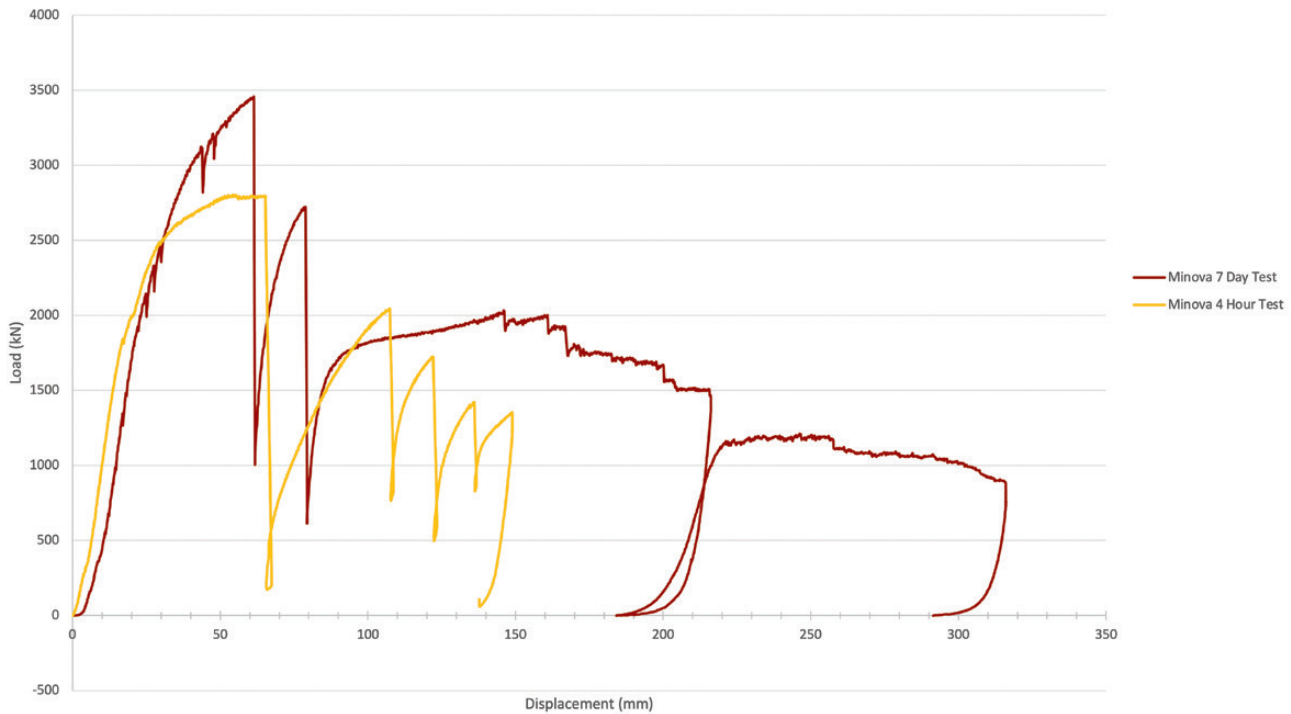
Zero manual handling

Highly simplified process which reduces errors in batching

## PROVEN TECHNOLOGY

- More than 15 years global experience supplying pumpable crib technology
- First in Australia to undertake full size, independent testing at the University of Western Sydney, a NATA accredited facility.
- 1,500 pumpable cribs installed across Australia
- Testing proves 280 tonnes achieved after just 4 hours

Minova Pumpable Crib Testing Results - University of Western Sydney  
Samples: 3.2m high and 900mm diameter



## QUALITY CONTROL

All of our products meet quality control guidelines in accordance with Minova's quality system. Our quality control process involves checks of both Tekcem, Tekbent and the mixed Tekpak P. These checks are done at both surface and underground locations to ensure customer requirements are met. Samples are taken after 7 and 28 days for compression testing.

*For further information see the relevant Technical Data or Safety Data sheet, copies of which are available on our website.*



**NEW SOUTH WALES**

Kurri Kurri  
Smithfield  
Nowra

**QUEENSLAND**

Mackay

**SOUTH AUSTRALIA**

Adelaide

**WESTERN AUSTRALIA**

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**Customer Service:**

1800 Minova / 1800 646 682 (free call within Australia)

1300 Minova / 1300 646 682 (local call Australia)

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