

## Grouts



The weeping system comprises of a dry pre-bagged grout that can be sand or pozzolan based. Technicrete Composite Pack grout consists of special cementitious components and carefully graded sands.

The **Technicrete Conmixer** air agitated mixer has been specially developed to operate inside mine stopes to deliver grouts directly into pre-stressing bags. There are no moving parts and it is thus trouble free. The **Conmixer** can also be used to provide continuous mixing and uninterrupted pumping. The product is batched and packed to ISO 9001: 2008.

In both the non-weeping and weeping systems, the grouts are mixed with water and pumped into a pre-stressing bag placed between the Technicrete Composite Pack and the hanging wall. The pressure generated within the bag results in a load and pre-stressing of the Technicrete Composite Pack. This simple and effective pre-stressing allows blasting on the packs, immediately with the weeping system or, within 20 minutes using the non-weeping system.



Technicrete Composite Pack element under proof compression test.

Continued research and testing of the Technicrete Composite Pack ensures quality standards are maintained. All concrete materials are to SANS specifications.



Manufacture carried out on shaft bank where the composite units are packed directly onto mine cars reducing transport and handling costs.

**Technicrete Composite Pack Manufacturing Plant**  
Manufacturing and dispatch of Technicrete Composite Pack in close proximity to mine shaft.

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# TECHNICRETE Composite Pack

Giving you better support where you need it most



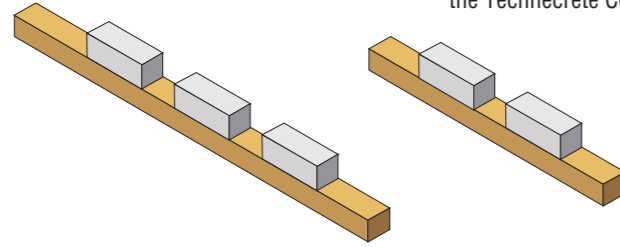
**TECHNICRETE**  
quality support

PAVING • KERBS • EROSION PROTECTION • RETAINING WALLS • MASONRY • HEAVY DUTY PAVEMENTS  
• MINING • SHOTCRETES • PREBAGGED PRODUCTS • STOPE SUPPORT SYSTEMS

# Technicrete Composite Pack

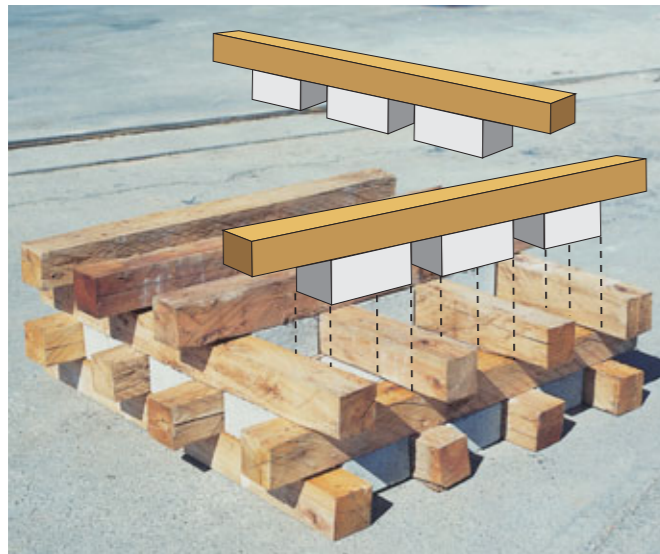
## The positive system for underground support

The Technicrete Composite Pack designed and developed for your specific requirements.



**Standard Technicrete Composite units.**  
Concrete blocks secured to timber chocks forming the basic unit of the Technicrete Composite Pack

## The real benefits of Technicrete Composite Pack



**Easy construction**  
All units are designed to interlock. This ensures proper construction in stopes and simplifies construction in steep dips.



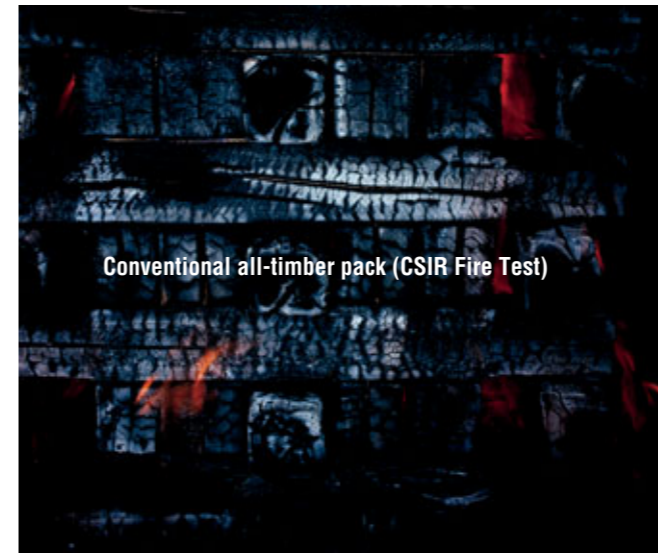
**No lost fines**  
The closed face of the Composite pack eliminates the loss of gold bearing ore into the pack.



**Improved shaft time**  
One fully loaded car gives 3.6m rise of support pack  
(Based on 1.1m x 1x1m x 9 pointer)



All timber mat pack. One fully loaded car gives only 1.6m rise of support pack.



Conventional all-timber pack (CSIR Fire Test)



Composite Pack self extinguish after heat source is removed

**High fire resistance.**  
The Technicrete Composite Pack is slow to ignite and tends to self extinguish when the heat source is removed (CSIR Fire Tests)

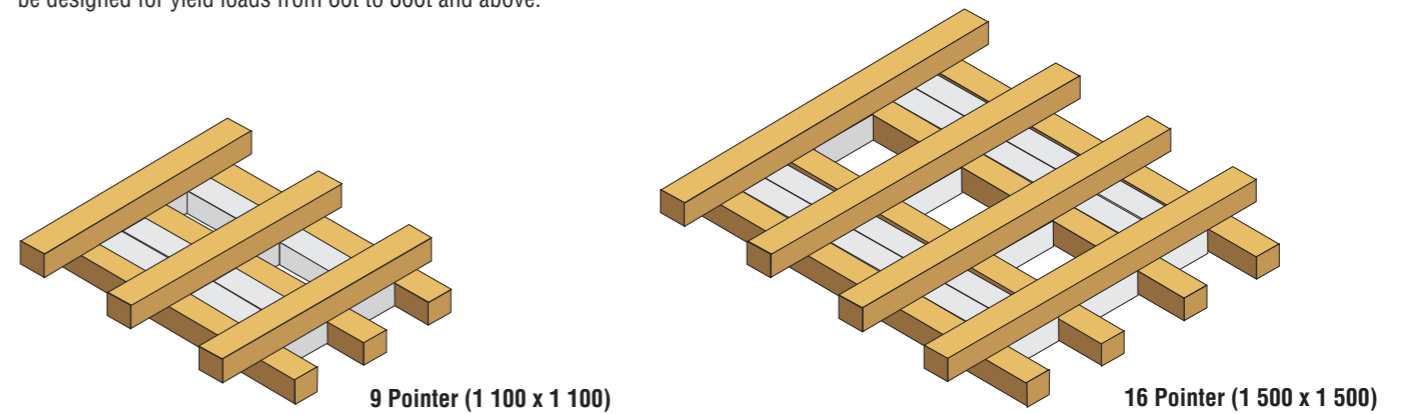
## Technicrete Composite Pack – the cost effective support

The use of design strength concrete in Technicrete Composite Pack provides immediate support at a substantial cost saving. On a cost per ton of support basis, the Technicrete Composite Pack gives outstanding value.

In addition, quality controlled concrete greatly reduces the effect of timber strength variation giving a more consistent support strength.

## Technicrete Composite Pack yield loads

The versatility of Technicrete Composite Pack allows pack configurations to be designed for each application. The Technicrete Composite Pack can be designed for yield loads from 60t to 800t and above.



## Pre-stressing the Technicrete Composite Pack

The pre-stressing of underground support is carried out for two important reasons:

- to provide an active pre-load to the pack
- to prevent blast out

The pre-stressing method can be used in conjunction with the Technicrete Composite Pack to achieve the support resistance required

- Technicrete offers 2 types of pre-stressing systems:
- The weeping pre-stressing grout, bag and pump