

**Distributed by
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Product Information

Rock Filla

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**SANS 120
ACCREDITED**

MINING TAMPING / STEMMING FOAM



**South African Product • 54% Black Women Owned
DMR Approved**

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ROCK FILLA MINING TAMPING/STEMMING PU FOAM

◆ Cost efficient, durable, lightweight and versatile ◆

In the underground mining industry, explosive charges are used for the removal of valuable veins from a bedrock. The veins may contain valuable ores of platinum, gold, silver, chrome or iron.

An explosive charge is inserted into each hole and sealed by tamping the hole.

Benefits of mining foam

- ✓ No working tools needed
- ✓ No hard labour
- ✓ Use in narrow spaces
- ✓ Adapts its shape to the hole
- ✓ Expansion, approximately 30times of its original volume
- ✓ Faster curing time, approximately 20 minutes (saving time)
- ✓ Decreases number of misfires
- ✓ A larger number of charges can be exploded with approximately 10-20%
- ✓ Can be easily removed from the hole, i.e. by cutting the foam in pieces and removing it. (Important in case the explosive shows a defect)
- ✓ Yield increases of up to 10 or more have been found
- ✓ No waste material to the concentrator
- ✓ Multi purpose product (ventilation)

NON-TOXIC AFTER CURING



Rock Filla Images

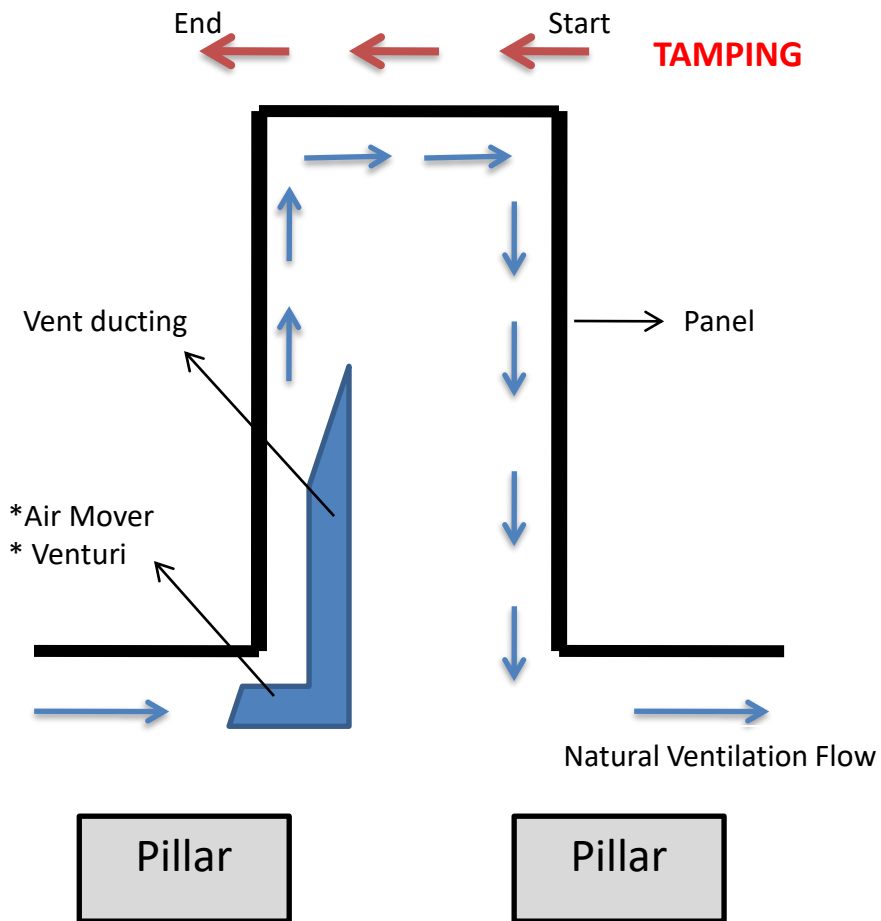


Rock Filla Images



PREFERRED METHOD OF TAMPING SHOT HOLES WITH ROCK FILL

Recommended way of tamping shot holes



ALWAYS tamp against the ventilation flow

TREATMENT OF MISFIRES

- 1.) Remove tamping with aluminium/copper scraper wire
- 2.) Wash out hole with water

Rock Filla Handling instructions

Rock Filla Tamping /Stemming foam is supplied in a 750ml pressurised canisters of which 12 is placed in a cardboard box, this will be the packaging format used when supplied to customers. Inside the Rock Filla canister is safety valve that prevents the expulsion of foam if the trigger is depressed when the canister is in an up-right position. The reason for this is for when the Rock Filla is stored and there is accidental triggering due to stacking there will not be any foam released.

The storage and handling of Rock Filla Tamping /Stemming foam is described below:

- When the Rock Filla is delivered to the mine store, the boxes may be stacked to a maximum of 5 rows high.
- The issuing of the Rock Filla should be carefully controlled, as with all pressurised canisters they will need to be returned to surface and exposed of in the proper manner as per the local law.
- Rock Filla canisters should be issued individually and only the minimum amount required for a single day's use must be dispensed.
- To aid with the above we propose a similar system as used for the issuing of PPE. The idea is that after the initial issue a person cannot receive another canister if the empty one is not returned. In cases where additional canisters are required, a written consent from the supervisor signed by the HOD is required.
- In cases where the client is using emulsion explosives, the Rock Filla can be issued together with the in-line mixer and controlled in this manner.
- When the used canisters are returned it can be disposed of as per the local law and can also form a system of control and job creation.

Application of Rock Filla Tamping/Stemming Foam is described below:

- Rock Filla Tamping foam is a multi-component system and it is imperative to shake the canister before use.
- It is also advisable to connect the applicator nozzle after shaking.
- Once the canister is shaken and the nozzle connected the application of Rock Filla Tamping Foam can commence.
- There is a safety mechanism built into the canister that requires the canister to be angled at an angle of at least 15-30° with the horizon, it can also be used inverse.
- When depressing the trigger, attention must be given to the volume of Rock Filla Tamping Foam being expelled, as the Rock Filla Tamping Foam expands rapidly. The average 34mm hole will require the trigger to be depressed for 1 second to expel enough foam for efficient tamping.
- Can be utilised at 360 °

Volume Test

One 750ml can of ROCK FILLA MINING TAMPING/STEMMING FOAM was used in the test.

- The foam was sprayed and it covered an area of 50cm by 142cm as per photo 1 and 2.



Photo 1



Photo 2

- Photo 3 shows the total area that has been covered



The total area covered by the foam in square cm is
 $50 \times 142 = 7100 \text{ cm}^2$

- A cut was made approximately in the middle of the covered area and the thickness was measured on three different places as per photos.



The average can was obtained by adding three measurements and dividing it by three.

$$4 + 6 + 5 = 15 / 3 = 5\text{cm}$$

The volume can then be determined as follows.

$$50 \times 142 \times 5 = 35\,500 \text{ cm}^3 / 1000 \text{ to get liters} = 35.5 \text{ liter.}$$

The expansion rate of ROCK FILLA MINING FOAM is

$$35.5 / 0.750 \text{ liters} = 47.333$$

Conclusion

One can of 750 ml ROCK FILLA MINING TAMPING/STEMMING FOAM should under good conditions expand to make 35.5 liters of foam.