

NEWSLETTER

HOT HOLE BLASTING WITH PVC SLEEVING

DEAR VALUED STAKEHOLDERS,

We hope this newsletter finds you well. At Stemwize, we are committed to providing innovative solutions for the mining industry, and today, we're excited to shed light on an essential aspect of our blasting technology - Hot Hole Blasting with PVC Sleaving.

PVC Sleaving for High-Temperature Charging

Why PVC Sleeves?

PVC Sleeves are a crucial component in our blasting operations, specifically designed for charging holes above 80°C. Polyvinyl chloride (PVC), the material used for these sleeves, is the world's third-most widely produced synthetic plastic polymer, with approximately 40 million tons produced annually.

Heat Stability and Flame Retardancy

The heat stability of raw PVC is inherently poor, necessitating the addition of a heat stabilizer during the manufacturing process to ensure optimal product properties. PVC exhibits melting temperatures ranging from 212°F (100°C) to 500°F (260°C), depending on the additives used. Notably, PVC boasts a small linear expansion coefficient, excellent flame retardancy, with a limiting oxygen index (LOI) of up to 45 or more. The LOI represents the minimum concentration of oxygen needed to support combustion, and PVC's high LOI enhances safety in blasting operations.

Thermal and Fire Properties of PVC

Insulation and Resistance

Being a thermoplastic, PVC possesses inherent insulation properties, aiding in the reduction of condensation formation and resistance to internal temperature changes for both hot and cold liquids. This characteristic makes PVC Sleeves a reliable choice for Hot Hole Blasting, contributing to the safety and efficiency of mining operations.

ADVANTAGES OF PVC SLEEVING IN HOT HOLE BLASTING

- 1. Safety Assurance:** PVC's high LOI and flame retardancy enhance safety during blasting operations, reducing the risk of combustion.
- 2. Temperature Stability:** The use of PVC Sleeves ensures stable charging even in high-temperature environments, promoting consistent and controlled blasting.
- 3. Insulation Properties:** PVC's inherent insulation properties contribute to a reduction in condensation and resist internal temperature changes, maintaining the integrity of the blasting process.

CONCLUSION

At Stemwize, we are dedicated to delivering cutting-edge solutions that prioritize safety, efficiency, and innovation in the mining industry. The use of PVC Sleaving in Hot Hole Blasting is a testament to our commitment to excellence.

For further inquiries or to explore how Stemwize can enhance your blasting operations, please contact us at admin@stemwize.com or <https://stemwize.co.za/contact-us/>.

Thank you for your continued partnership.



Sincerely,
Stemwize Team