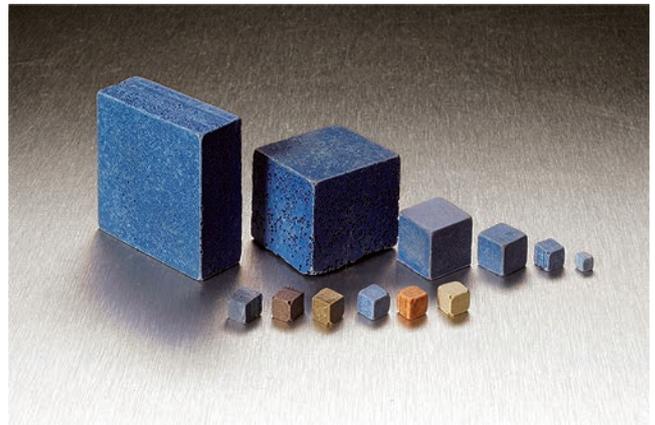


DE BEERS TECHNOLOGIES

Luminescent Tracers

APPLICATION

Tracers are an essential component in setting up X-ray based diamond sorting machines. Tracers are luminescent which allows them to be recovered by X-ray machines. Through calibration, the machine's detection sensitivity can be adjusted to the most cost effective level, thus maximising diamond recovery and minimising the volume of waste material recovered. To aid this procedure, tracers are manufactured in 6 luminescence intensities and 7 sizes. The luminescence intensities are indicated by different colours, blue, brown, grey, violet and olive, and are available in sizes 2mm, 3.2mm, 5mm, 8mm, 12mm, 25mm and 38mm.



Ceramic Diamond Simulants

APPLICATION

The use of diamond simulants makes it possible for the management at mining sites, and particularly at diamond separation and recovery plants, to identify the stages in ore handling or subsequent processing, where stones may be trapped or damaged in order to take corrective action.

BENEFITS

The financial benefits to the mine, of eliminating and avoiding hang-up or damage, are considerable.

Without the use of simulants, it would be virtually impossible to quantify accurately the losses attributable to avoidable diamond damage.

Diamond damage generally occurs most frequently at:

- DMS cyclone feed pumps
- Concentrate transfer pumps
- Pneumatic transfer into bins
- Other transfer points

The simulants are available in a range of colours, i.e. white, red, blue & green and sizes 3mm, 4mm, 6mm, 8mm, 12mm, 16mm, 20mm and 25mm. All simulants have sufficient luminescence intensities so that they can be recovered by X-ray technology.



NOTE:

These tracers and simulants were developed for use on DebTech produced sorters. No guarantees are applicable when these components are used on any other sorting technologies.

DE BEERS
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