

ABRASION PROTECTION OF SCREENING EQUIPMENT

Beams, screen decks, side plates, discharge lips are all subjected to abrasive forces during screening operations. Rubber, polyurethane, alumina ceramic tiles and metallic wear plates have all been used to control abrasive wear.

Epoxy-ceramic composites have had limited OEM use in screens. Typically they have been used to grout in metallic wear plates and to line beams against the sliding action of abrasive fines

However once the screening equipment is in a repair/maintenance situation, the use of two pack epoxy-ceramic composites are the material of choice. This is due to:

- Easy in-situ installation
- Ambient temperature cure, with a range of cure speeds to suit many situations
- Self priming onto many different substrates
- Wide tolerance mixing ratio compared to polyurethanes
- Can tolerate damp surfaces
- Can be readily formed to give contoured profiles up to typically 20mm thick
- Smooth finish possible to reduce material build up
- Easily re-coated for ongoing maintenance
- Sliding and impact applications can be handled.
- Solvent free

In the case of damaged existing linings such as rubber, polyurethane or ceramic tiles, the epoxy-ceramic composite is simply applied over the clean, correctly prepared substrate.

This usually involves removing any loose or poorly adhered lining, buffing or grinding the existing lining to leave a rough profiled surface and now applying the mixed trowellable epoxy-ceramic composite to the required thickness.

Worn epoxy-ceramic composite is abraded and recoated with more mixed epoxy-ceramic composite during the next maintenance shutdown.