

SWEAT ON PASTE

SOP composed of ultra-hard chromium boride crystals (second only to diamond on the hardness scale) is the most abrasion-resistant material available for antiwear use. Due to its high hardness alloy chemistry and needle-like structure, thin overlays of SOP provide outstanding resistance to severe abrasion and particle impact erosion.

Applications:

SOP has wide applications in mineral based industries, thermal power stations, cement plants, steel plants, sugar factories and agricultural industry where severe abrasion and erosion are to be contained. Exhauster fans, ID fans, conveyor screws, coal chutes, coal cutter, bits, ducts and 90° bends, disc harrows, plowshares, scraper blades, air separator guide vanes etc. are coated with SOP for exceptionally long service life.

Procedure:

Acetylene Torch Application:

SOP is brushed on the surface, which must be free of all dust, grease and scale to a thickness of not more than 0.5mm. This must be allowed to dry. A generous, carburizing flame is applied to the surface at one point until the crystals cease to glow and are seen to bond with the base metal. As this bonding proceeds, the flame should be moved along at a rate sufficient to keep the surface sweating ahead of the flame. The width of the path travelled will be governed by surface area and parent metal thickness. On sections 6mm and heavier the carbon arc method is recommended.

Carbon Arc Application:

Apply SOP not more than 1.50mm thick, with a spatula to a slightly warmed surface, free of grease, dirt and rust. The warm surface facilitates the drying of the paste faster. After drying this coating is fused to the surface, using a pointed 6mm / 8mm carbon electrode negative polarity, with amperage governed by the thickness of base metal and paste. Beads of uniform width are produced with a crescent shaped weave, advancing at a rate to allow inclusions to float and leave a smooth surface. Succeeding beads should overlap 6mm to ensure uniform penetration.

<u>Technical Data</u>	:	S O P
Hardness	:	68 – 72 HRC
Maximum thickness of coating	:	1.5mm
Volumetric coverage	:	300 Cm ³ per kg of paste

DIFFUSION ENGINEERS LIMITED

Regd. Office & Works I : T-5/6, M.I.D.C, Hingna Industrial Area, Nagpur-440 016, (T) 091-7104-232084, 234727 (F) 232085

Works II : N-78/79, MIDC, Hingna Industrial Area, Nagpur – 440 016. (T) 091-7104-236036

Works III : T-12, MIDC, Hingna Industrial Area, Nagpur – 440 016.(T) 091-7104-232984

Email : info@diffusionengineers.com Website : www.diffusionengineers.com

Branch Offices : Chennai, Faridabad, Jamshedpur, Pune, Raipur, Secunderabad, Vadodara.