

## FIBERStone - Copper Industry

FIBERStone is a combination of high temperature ceramic materials and up to 45% specially alloyed stainless steel fibers. The combination of these materials is directly dependent upon the application of the composite. This product is supplied as a precast shape. Design and engineering of the individual parts take into consideration attachment, internal reinforcement and ease of installation. FIBERStone parts should be considered a "high temperature refractory metal". It is very effective when applied as a replacement for metal parts that are destroyed by process heat. FIBERStone is also an ideal solution for a wide variety of molten metal contact applications.

Stellar Canada Inc. has developed a FIBERStone slurry formulation/high quality wire reinforcement specifically for molten copper contact. This has been used in several tundish tips, outlet tips, and launder tips. The FIBERStone shapes have replaced metal launder tips up to and including inconel that oxidize quickly due to their exposure to the process. FIBERStone shapes outperform the metallic section and are typically less expensive.

Photo No.1 - The large part is a "Holding Furnace Outlet Tip" that is used on a continuous basis. The small part is an "Anode Furnace Pouring Tip". The openings in the flange allow the shape to be bolted into place.

Photo No. 2 & 3 - A "Launder Tip" showing the openings (slots) to bolt the shape into place. A steel connector piece is cast into the FIBERStone shape to mate with the launder meeting the tip. Conventional precast shapes will not stand up to bolt connectors and internal reinforcement due to cracking from thermal and/or mechanical shock.



No.1 - HOLDING FURNACE OUTLET TIP  
ANODE FURNACE POURING TIP



NO. 2 - LAUNDER TIP



NO. 3 - LAUNDER TIP