



SPOUTS AND ORIFICE RINGS WITH CHROME OR FUSED CAST INSERTS FOR LONG-RUN PRODUCTION

CONTAINER GLASS FOREHEARTH REFRACTORY SHAPES

To help optimize glass plant efficiency, Pyrotek supplies spouts and orifice rings with isostatically pressed chromic oxide or fused-cast AZS inserts. Pyrotek-inserted spouts and orifice rings last multiple times longer than standard refractories, so the need to change refractories is much reduced, thereby minimizing production-stoppage time.

Pyrotek chrome inserts are made by combining chromic oxide with zirconia to give excellent corrosion resistance. Fused cast AZS inserts are dense, have low porosity and low glassy phase.

The inserts are cemented in place with a high-grade phosphate bonded mortar. The mortar has a maximum service temperature that far exceeds the glass temperature.



CHROMIC OXIDE PROPERTIES FOR SPOUTS AND ORIFICE RINGS

Physical Characteristics	Value
Bulk density (Kg/m ³)	4100
Apparent porosity (%)	16
Cold crushing strength (MPa)	88
Refractories under load (ta °C)	1700
Pyrometric cone equivalent (Orton)	38

CHEMICAL ANALYSIS

	Unit	Values
Cr ₂ O ₃	%	84.0
Fe ₂ O ₃	%	0.1
Al ₂ O ₃	%	3.0
TiO ₂	%	3.5
ZrO ₂	%	8.0

FUSED CAST PROPERTIES FOR SPOUTS

Physical Characteristics	Value
Bulk density (Kg/m ³)	4000
Refractories Under Load T _{0.5} (°C)	≥1700
Cold Crushing Strength (MPa)	≥350
Exudation of Glass Phase (1500°C x 16h) (%)	≤2.5

CHEMICAL ANALYSIS

	Unit	Values
ZrO ₂	%	≥41.0
SiO ₂	%	≤12.0
Na ₂ O	%	≤1.20
Fe ₂ O ₃ + TiO ₂	%	≤0.25
Al ₂ O ₃	%	Balance

