

Firelite 20XL

Description

A family of really light weight insulating concretes for applications requiring low thermal conductivity coupled with good strength as called for in various areas such as radiant and convection zones, doors etc. of heaters in the petrochemical industry where temperatures up to 1230°C/2250°F may be encountered. The light insulating concrete Firelite 20 may be cast or gunned. The light insulating concretes Firelite 20X and 20XL have separate gunning versions. All of these materials conform to classes N, O and P of ASTM classification C-401-84.

Characteristics		
Bond Type	Hydraulic	
Raw Material Base	Insulating Aggregate	
Maximum Grain Size (mm)	8	
Maximum Service Temperature	°C	1230
Bulk Density Dried to 110°C	kg/m ³	850
Net Material Required	kg/m ³	770

Physical Properties		
Test Temperature (°C)	Cold Crushing Strength (N/mm ²)	Permanent Linear Change (%)
110	2.9	
815	2.1	-0.2
1000	2	-0.3
MST	2 (1100)	-0.6 (1200)

Thermal Conductivity ASTM C417 (W/mK)		
@ mean temp	200°C	0.15
	400°C	0.17
	600°C	0.2
	800°C	0.22

Typical Chemical Analysis (%)	
Al ₂ O ₃	37.1
SiO ₂	31
Fe ₂ O ₃	6.7
TiO ₂	1.2
CaO	21.3
Na ₂ O, K ₂ O	1.7

Modulus of Rupture (N/mm ²)	
110°C	
815°C	

Water Addition	
% by Weight	68
Volume per Bag (l)	

Abrasion Resistance C704 (cm ³)	
815°C	

Packaging Size (kg)	
Bag Weight	25
Pallet Size	900

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