



Hercules® 80LX² - 85LX^{3V} - 92XCII

MAGNESIA - HERCYNITE SPINEL BRICK

DESCRIPTION: Line of products designed specifically for extreme kiln conditions. The mag-hercynite spinel bond allows for maximum strength, flexibility, and refractoriness under load. Characterized with excellent thermal shock resistance as well as high resistance to liquid phase infiltration, corrosion, and the ability to withstand mechanical stress intensity from kiln tire and gear areas. The spinel bond characteristics solve the shortage of low melting point calcium aluminate which allows excellent flexibility yet superior strength. Rotary kilns in our current economy must be able to withstand the added variable of changing fuel types and sources. Stabilizes the coating to refractory bond and minimizes spalling due to changing kiln conditions.

USES INCLUDE: Burning zones and upper transitions of rotary kilns burning pet coke, liquid fuels, high sulfur coal, and/or varying fuels with natural gas.

CHEMICAL ANALYSIS: (TYPICAL CHEMICAL ANALYSIS)

(Approximate % by weight)

	80LX²	85LX^{3V}	92XCII
MgO	80.0	85.0	92.0
Fe ₂ O ₃	7.5	7.5	4.0
Al ₂ O ₃	3.0	3.0	3.5
SiO ₂	2.0	1.0	1.0
CaO	1.3	1.3	1.3

TYPICAL AS RECEIVED PROPERTIES:

	80LX²	85LX^{3V}	92XCII
Apparent Porosity (%)	17.0	17.0	16.0
Bulk Density (g/cm ³)	2.9	3.0	2.95
Cold Crushing Strength	40	50	55
RUL (°C)	1600	1650	1700
Thermal Conductivity (W/mk)	2.6	2.6	2.8
Thermal Expansion (1400°C)	-	1.6	-
TSR @ 950°C	80	100	100



The values reported above are average values derived from production data encompassing many different sizes and shapes. Actual data will vary to a small degree naturally and as a function of size and shape. This form is not intended to be used for purposes of specification; it is informational only.

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