

GRAFTech International

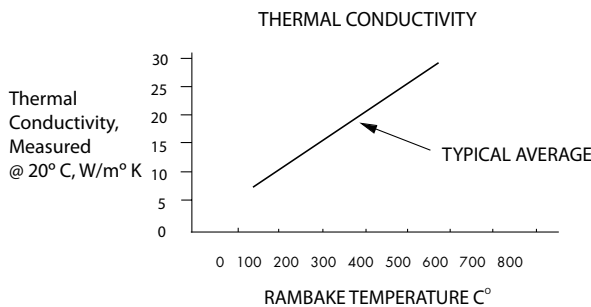
HotPressed™ Refractory Systems

SMARTRAM® RP20 RAMMING PASTE

Description: SMARTRAM® RP20 ramming paste is a ram with specially treated graphite flake. This ram is designed to provide excellent thermal conductivity, ease of installation and a unique expanding characteristic which can "self-correct" in case refractory movement or voids due to improper installation result in loss of cooling contact. Ram must be at room temperature (20°C/70°F) before use.

This self-correcting feature is activated by a temperature increase, such as would occur if a gap formed between the cooling pipe and the ram or if the ram was not properly installed. Once the ram temperature exceeded 200°C the specially treated graphite would increase in volume by "puffing" (thus also lower density). However, since this puffing material is graphite, the void which was originally filled with air would now be filled with graphite. This unique "self-correcting" feature provides a ram material that is smart enough to realize that correction action is required if heat transfer is lost. Thus, no longer will heat transfer capability be dependent upon ramming technique or field supervision quality. SMARTRAM® RP20 ramming paste will not shrink up to a temperature of 700°C during use, so thermal contact with the cooling pipes is never lost. RP20 ramming paste is supplied in loose form or as 6" x 9" briquettes in various thicknesses.

ESSENTIAL PROPERTIES	Typical Average	Min./Max. Individual Sample	Comparable ASTM Test Procedure
Bulk Density (Loose) (gm/cc)	0.80	0.60	ASTM C559
INFORMATIONAL PROPERTIES			
Bulk Density (Rammed) (gm/cc) (Depends on Ramming technique)	1.70		ASTM C559
Thermal Conductivity (W/m°K)			ASTM C714



NOTE: Thermal conductivity graph based on sample rammed to 1.7 g/cc density. For lower rammed density the thermal conductivity would be proportionately lower.

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