

TECHNICAL DATA SHEET

REFRACTORY BRICKS LP

Insulating refractory bricks are made from high-purity refractory clays, with a gradually releasing proportion of alumina for products intended for use at higher temperatures, and carefully saturated with an organic filler which burns out during the manufacturing process to give a uniform controlled cell structure.



		LP 23	LP 26	LP 28	LP 30	LP 32
IFB classification temperature	°C	1260	1430	1540	1650	1760
Parameters measured at ambient conditions (23°C/50% RH)						
Density (ASTM C-134-84)	kg/m ³	480	808	890	1020	1200
Flexural strength (ASTM C-93-84)	Mpa	1	1,5	1,8	2,1	2,1
Cold compressive strength	Mpa	1,2	1,6	2,1	2,2	3,5
Performance at high temperatures						
Continuous linear shrinkage (ASTM C-210) after 24 hours at temperatures:						
Reversible thermal linear expansion (max)	%	1230 °C : 0,2	1400 °C : 0,1	1510 °C : 0,4	1620 °C : 0,8	1730 °C : 0,6
Heat resistance % deformation after 90 min (ASTM C-16)						
1100°C w 0.034 MPa (5psi)	%	0,1	-	-	-	-
1260°C w 0.069 MPa (10psi)	%	-	0,2	0,1	-	-
1320°C w 0.069 MPa (10psi)	%	-	-	0,2	0,1	-
1370°C w 0.069 MPa (10psi)	%	-	-	-	0,5	0,2
Thermal conductivity (ASTM C-182) at average temperatures:						
400°C	W/m.K	0,12	0,25	0,3	0,38	0,49
600°C	W/m.K	0,14	0,27	0,32	0,39	0,5
800°C	W/m.K	0,17	0,3	0,34	0,4	0,51
1000°C	W/m.K	0,19	0,33	0,36	0,41	0,53
1200°C	W/m.K	-	0,35	0,38	0,42	0,56
1400°C	W/m.K	-	-	-	-	0,6
Specific heat at 1000°C	kJ/kg.K	1,05	1,1	1,1	1,1	1,1
Chemical composition (ta = trace amounts)						
Al ₂ O ₃	%	37	58	67,1	73,4	77
SiO ₂	%	44,4	39,1	31	25,1	21,5
Fe ₂ O ₃	%	0,7	0,7	0,6	0,5	0,03
TiO ₂	%	1,2	0,1	0,1	0,1	ta
CaO	%	15,2	0,1	0,1	ta	ta
MgO	%	0,3	0,2	0,1	ta	0,1
Na ₂ O + K ₂ O	%	1,1	1,7	0,9	0,9	0,9

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