

REFRACTORY LININGS FOR ROTARY CEMENT KILNS AND LIME KILNS

Chemical and physical properties - typical

Product		MgO (%)	Cr ₂ O ₃ (%)	Fe ₂ O ₃ (%)	Al ₂ O ₃ (%)	CaO (%)	SiO ₂ (%)	Bulk density (g.cm ⁻³)	Apparent porosity (%)	Cold crushing strength (MPa)	Refractoriness under load Tb (°C)	Thermal conductivity (W.m ⁻¹ .K ⁻¹)		Thermal expansion (%)		Thermal shock resistance (number of coolings)	
												600 °C	1200 °C	1000 °C	1400 °C	STN	GOST
I	SLIMA 20 (MSp 70)	80	-	4	11,5	2,2	0,8	2,95	17	40	1560	3,1	2,5	1,1	1,6	30+	8
	SLIMA 90 (MSp 80)	89	-	0,5	8,0	1,8	0,4	2,95	15	40	1700	3,4	3,0	1,1	1,6	30+	8
	SLIMA Z 25 (MSp 70)	82	-	2	13,0	2,2	0,7	2,85	19	20	1600	3,0	2,8	1,2	1,7	30+	8
	SLIQMA (MSp 80)	84	-	0,6	12,0	1,8	0,5	2,90	17	35	1650	3,2	2,9	1,2	1,6	30+	10
II	SLII C (MCr 70)	78	8	8	2,0	2,5	1,5	3,00	17	40	1500	4,0	2,9	1,2	1,7	30+	4
	SLIIC-5A (MCr 70)	77	5,5	9	4,5	2,2	1,0	3,00	17	35	1500	3,2	2,1	1,1	1,7	30+	10
	SLIIC 80 (MCr 70)	80	5	9	2,5	2,0	1,0	3,00	16	35	1550	4,0	2,9	1,2	1,8	30+	10
	SLIIICQ (MCr 70)	75	14	5	2,8	1,5	1,0	3,05	18	30	1700	-	-	1,2	1,6	30+	8
	SLIIIC (MCr 70)	73	10	10	2,5	2,2	1,4	3,05	18	50	1550	3,1	2,5	1,2	1,6	30+	5
	SLIIICD (MCr 70)	74	12	8	2,0	2,0	1,2	3,10	16	40	1650	-	-	1,3	1,7	30+	10

I - magnesia-spinel bricks

II - magnesia-chromite bricks

Product		Charakteristics
I	SLIMA 20 (MSp 70)	Special magnesia-spinel brick with high resistance to thermal, mechanical and chemical attacks.
	SLIMA 90 (MSp 80)	Low iron magnesia-spinel brick with high resistance to operating factors, suitable for the most stressed parts of transition and burning zones of cement rotary kilns.
	SLIMA Z 25 (MSp 70)	Magnesia-spinel brick for especially stressed parts of the linings.
	SLIQMA (MSp 80)	Low iron magnesia-spinel brick with high resistance to operating effects.
II	SLII C (MCr 70)	Magnesia-chromite brick resistant to thermal shocks.
	SLIIC-5A (MCr 70)	Magnesia-chromite brick with increased resistance to thermal shocks.
	SLIIC 80 (MCr 70)	Magnesia-chromite brick resistant to abrasion by cement clinker and suitable for transition and burning zones of cement rotary kilns.
	SLIIICQ (MCr 70)	Low iron magnesia-chromite brick resistant to thermal shocks.
	SLIIC (MCr 70)	Magnesia-chromite brick with increased Cr ₂ O ₃ content, resistant to abrasion, thermal shocks and chemical effects as well.
	SLIICD (MCr 70)	Magnesia-chromite brick with increased resistance in heat and resistant to thermal shocks.