



RENO REFRACTORIES, INC

Reno Mag Cast 91 P

TECHNICAL DATA SHEET

Reno Mag Cast 91 P is a phosphate bonded magnesite castable for metal contact applications in basic conditions. It has good abrasion and thermal shock resistance.

Service Temperature: 3100°F/1704°C
Liquid Type: Water
Addition Quantity: 4.75-5.0%

Wt. Required for Estimating: 165 lb/ft³
Storage Life: 6 months
Curing: Minimum of 70 F for 24 hours or longer for lower temperatures

TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

MgO	Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	P ₂ O ₅	CaO	Alkalies
90.55	2.68	3.20	0.16	1.67	0.83	0.90

TYPICAL COLD PHYSICAL PROPERTIES

Prefired to °F	Cold Modulus of Rupture (psi)	Cold Crushing Strength (psi)	Density (pcf)	Porosity (%)	Linear Change (%)	Abrasion Loss (cc)	Thermal Shock Loss (%)	Permeability (mDarcys)	Surface Area (m ² /g)
250	686	8,614	162	20.95				35.636	2.306
750	619	7,034	158	23.18	-0.22			25.361	1.486
1500	1,660	7,511	165	17.59	-0.17	2.65		36.014	0.559
2000	1,780	7,569	167	17.72	-0.17		17.83%	89.904	4.338
2500	823	2,510	163	18.62	-0.33	2.53		416.216	0.110
2800	1,214	2,001	163	19.40	-0.55			523.884	0.046
3100	1,489	1,668	164	31.07	-0.70			1149.77	0.010

21-188 – 22-011 P

PIN# 690520

1/25/2022

The data presented represents typical average results obtained by testing under ASTM or other acceptable procedures as required. They are subject to normal variations and should not be used for specification purposes.

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