

Description: 2600°F Low-Iron Insulating Castable.

- Features:
- Meets the demands of severe furnace environments.
 - Low iron content minimizes destructive CO disintegration attack by reducing furnace atmospheres.
 - High strengths reduce cracking from mechanical abuse or steel shell flexing.
 - High alumina content improves maximum service temperature.
 - Lower water content for placement reduces internal steam pressure during initial heatup.

- Uses:
- Reheat furnace floor backup and aluminum furnace roof backup.
 - Boilers, petrochemical oil heaters, and air heaters.
 - Furnace stacks and flues.

Chemical Analysis: Approximate (Calcined Basis)

Silica (SiO ₂)	39.1%
Alumina (Al ₂ O ₃)	46.3%
Iron Oxide (Fe ₂ O ₃)	1.3%
Titania (TiO ₂)	2.0%
Lime (CaO)	9.9%
Magnesia (MgO)	0.4%
Alkalies (Na ₂ O+K ₂ O)	1.0%

Physical Data (Typical)	Conventional Cast/Poured
Maximum Service Temperature	2600°F (1425°C)
Material Required	86 lb/ft ³ (1.38 g/cm ³)
Bulk Density	lb/ft ³ (g/cm ³)
After 220°F (105°C)	90 to 100 (1.44 to 1.60)
After 1500°F (815°C)	86 to 96 (1.38 to 1.54)
Modulus of Rupture	lb/in. ² (MPa)
After 220°F (105°C)	700 (4.8)
After 1500°F (815°C)	300 (2.1)
After 2000°F (1095°C)	350 (2.4)
Cold Crushing Strength	lb/in. ² (MPa)
After 220°F (105°C)	2,500 to 3,500 (17.2 to 24.1)
After 1500°F (815°C)	1,100 to 2,100 (7.6 to 14.5)
After 2000°F (1095°C)	1,500 to (10.3)
Permanent Linear Change	
After 220°F (105°C)	None
After 1500°F (815°C)	0.0 to -0.3%
After 2000°F (1095°C)	-0.4%
After 2500°F (1370°C)	+1.1%
Thermal Conductivity	Btu · in/hr · ft ² · °F (W/m · °C)
At 400°F (205°C)	3.6 (0.52)
At 800°F (425°C)	3.4 (0.49)
At 1200°F (650°C)	3.5 (0.50)
At 1600°F (870°C)	3.7 (0.53)
At 2000°F (1095°C)	4.0 (0.58)

Product Data

Particle Size

Maximum Grain Size 4 Mesh (Tyler)

Less than 1%

Note: The test data shown are based on average results on production samples and are subject to normal variation on individual tests. The test data cannot be taken as minimum or maximum values for specification purposes. ASTM test procedures used when applicable.

Mixing and Using Information (Water calculated at 8.337 lb/gallon)	55 lb bag	1000 lb bag	1500 lb bag
Water Required—Hand Casting/Pouring (Weight 20.0%)			
Pounds	11.0	200.0	300.0
Gallons	1.3	24.0	36.0
Liters	5.0	90.6	135.9

Working Time

20 minutes

For detailed mixing and using instructions, contact your HWI representative or visit www.thinkHWI.com.

Heatup/Dryout Schedule

See HWI Dryout Schedule 4—PLUS Rated Lightweight Castables and Gunning Castables.

Installation Guidelines

See HWI Installation Guidelines IC-1—Insulating Castables—Standard.

Shelf Life (Under Proper Storage Conditions)

365 days