

Product Description

A 1400°C (2550°F) low cement castable exhibiting high strength at all temperatures and good abrasion resistance. Designed for general low cement applications like a burner block in aluminium melting and holding furnaces where medium strength and good thermal shock resistance is required.

Properties	LC 140
Region of Manufacture	Europe
Bond Type	Hydraulic
Method of application	Cast
Maximum Service Temperature, °C (°F)	1400 (2550)
Estimated weight of dry material/ m ³ of construction, kg (lb)	2440 (152)
Water addition, % by weight	6 - 7
Maximum grain size, mm	6
Packaging in bags, kg (lb)	25 (55)

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LC 140

Product Data Sheet

Density, kg/m ³ (pcf), BS EN ISO 1927	
oven dried, 110°C (230°F)	2440 (152.3)
Cold crushing strength, MPa (psi), BS EN ISO 1927	
oven dried, 110°C (230°C)	100 (14500)
after 5 hours firing, 815°C (1500°C)	60 (8700)
after 5 hours firing, 1000°C (1832°F)	75 (10875)
Permanent linear change, %, BS EN ISO 1927	
after 5 hours firing, 815°C (1500°F)	-0.2
after 5 hours firing, 1000°C (1832°F)	-0.3
Thermal conductivity, W/m•K (BTU•in./hr•ft ² •°F), BS EN ISO 1927	
600°C (1112°F)	1.6 (11.1)
Chemical composition, %	
Alumina, Al ₂ O ₃	52
Silica, SiO ₂	40
Calcium Oxide, CaO	3.8
Ferric Oxide, Fe ₂ O ₃	2.5

Instruction for Use

Highest strength is obtained with castable refractory by using the least amount of clean mixing water that will allow thorough working of material into place by vibrating. A mechanical mixer is required for proper placement (paddle type mortar mixers are best suited).

After adding the recommended water mix for at least 4 minutes, place the material within 20 minutes after mixing. For maximum strength cure 24 hours in a damp condition before initial heat-up. New castable installation must be heated slowly the first time.

This must be installed under closely controlled conditions using mechanical mixers and vibration. The resultant concrete has a dense, low permeability structure and care must be exercised during initial heating. At top water material can be placed at minimum or no vibration.

Storage and Shelf Life

- Should be stored in dry conditions, unopened packaging on pallets. Do not store on ground. Keep out of rain and damp conditions.
- Shelf life is of six months with original packaging, double shrink film and dehydrating agent provided if the monolithic is stored under these recommended conditions.

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