



Low Cement Castables

| PARTICULARS | RECAST LC45 | RECAST LC60 | RECAST LC60ABR | RECAST LC70 | RECAST LC80 | RECAST LC90 | RECAST LC90ABR | RECAST LC95 | RECAST ULCC90 |
|---|---------------|---------------|----------------|---------------|---------------|---------------|----------------|---------------|---------------|
| GENERAL PROPERTIES | | | | | | | | | |
| Service Temp°C (Max) | 1550 | 1600 | 1600 | 1600 | 1700 | 1700 | 1750 | 1800 | 1750 |
| Grain Size (MM) (Max.) | 6 | 6 | 10 | 6 | 6 | 6 | 10 | 6 | 6 |
| Water Required to Mix (%) | 4.0 - 5.0 | 4.5 - 5.0 | 4.0 - 5.0 | 4.0 - 5.0 | 4.0 - 5.0 | 4.0 - 5.0 | 4.0 - 4.5 | 4.5 - 5.0 | 4.5 - 5.0 |
| Reversible Thermal Expansion @1000°C | 0.50 | 0.60 | 0.30 | 0.65 | 0.75 | 0.85 | 0.9 | 0.9 | 0.9 |
| PHYSICAL PROPERTIES | | | | | | | | | |
| Bulk Density (gm/cc) (Dried at 110°C)(Min.) | 2.3 | 2.6 | 2.35 | 2.7 | 2.9 | 3.0 | 2.90 | 3.10 | 3.0 |
| Cold Crushing Strength (kgf/cm²) | | | | | | | | | |
| 1 Day | 200 | 200 | 250 | 250 | 250 | 250 | 300 | 200 | 200 |
| 110°C | 750 | 800 | 900 | 800 | 870 | 1000 | 1100 | 1050 | 700 |
| 1100°C | 950 | 950 | 1000 | 950 | 1100 | 1150 | 1300 | 1200 | 1100 |
| 1500°C | 1100 | 1100 | 1100 | 1100 | 1300 | 1300 | 1500 | 1350 | 1200 |
| MOR, Kg/Cm² | | | | | | | | | |
| 110°C | 100 | 120 | 120 | 130 | 130 | 140 | 140 | 160 | 120 |
| 1100°C | 125 | 150 | 150 | 170 | 180 | 200 | 180 | 190 | 200 |
| 1500°C | 165 | 170 | 180 | 230 | 250 | 270 | 220 | 270 | 260 |
| THERMAL PROPERTIES | | | | | | | | | |
| Refractoriness°C (Min) | 1717 | 1804 | 1804 | 1804 | 1820 | 1820 | 1820 | 1820 | 1820 |
| Permanent Linear Change (%) (Max) | | | | | | | | | |
| 800°C | ±0.20 | ±0.20 | ±0.10 | ±0.20 | ±0.20 | ±0.20 | ±0.20 | ±0.20 | ±0.20 |
| 1100°C | ±0.30 | ±0.30 | ±0.30 | ±0.30 | ±0.30 | ±0.30 | ±0.30 | ±0.30 | ±0.30 |
| 1500°C | ±1.00 | ±1.00 | ±1.00 | ±0.10 | ±0.80 | ±0.80 | ±0.90 | ±0.90 | ±0.80 |
| Thermal Conductivity (Kcal/hr/m²°C) | | | | | | | | | |
| 400°F/3 Hrs | 0.84 | 0.95 | 0.90 | 1.55 | 1.65 | 2.20 | 1.65 | 2.25 | 1.75 |
| 600°F/3 Hrs | 1.05 | 1.10 | 1.00 | 1.25 | 1.75 | 2.30 | 1.70 | 2.30 | 1.80 |
| 800°F/3 Hrs | 1.16 | 1.20 | 1.10 | 1.76 | 1.80 | 2.35 | 1.80 | 2.35 | 1.85 |
| CHEMICAL PROPERTIES | | | | | | | | | |
| Al ₂ O ₃ (Min) | 45.0 | 60.0 | 60.0 | 70.0 | 80.0 | 90.0 | 90.0 | 94.0 | 90.0 |
| Fe ₂ O ₃ (Max) | 1.50 | 1.50 | 1.60 | 1.50 | 1.80 | 1.80 | 0.60 | 0.30 | 0.60 |
| Application Guidelines | | | | | | | | | |
| Mixer Placement | P | P | P | P | P | P | P | P | P |
| Water/Mix Temperature °C | V | V | V | V | V | V | V | V | V |
| Mixing Time (Min.): Dry/Wet | 20 ± 5 2/5 | 20 ± 5 2/5 | 20 ± 5 2/5 | 20 ± 5 2/5 | 20 ± 5 2/5 | 20 ± 5 2/5 | 20 ± 5 2/5 | 20 ± 5 2/5 | 20 ± 5 2/5 |

Low cement castables product data sheet

Note: 1. Above are average typical test data subject to reasonable variations. 2. Tested as per BIS 10570: 1983. 3. Essential: Strictly Measured Water%
4. Application: Cold Water/Mix - 20 ± 5°C. 5. Requirement: 33 RPM Mixer - VAM Type, Needle/Shutter Vibrator. 6. Mixing Time: Dry - 2 minutes, Wet - 5 minutes.