

Rheo-flow (RF)

September, 2010

| Product | RF-CRX-RE | RF-CC-RE | RF-GX-RE | RF-GX-SR-RE | RF-GX-AL | RF-HEX-RE | RF-KX-RE | RF-D90X | RF-D80X-RE | RF-D60X-RE | RF-WP13-RE | |
|--|--------------------------------|--|-------------------------------|-------------------------------|--|---------------------------------------|----------------|-------------------------------------|--------------------------|--------------------------|-----------------|----------------|
| Raw materials | High purity alumina | High purity alumina | High alumina | High alumina | High alumina | High alumina | High alumina | High-quality chamotte | Silicon carbide | Silicon carbide | Silicon carbide | Chamotte |
| Max service temperature(°C) | 1750 | 1650 | 1600 | 1600 | 1600 | 1600 | 1600 | 1550 | | | | 1500 |
| Installation requirement(t/m ³) | 3.21 | 3.13 | 2.87 | 2.93 | 2.94 | 2.52 | 2.30 | 2.54 | 2.62 | 2.67 | 2.22 | |
| Water additions(wt%) | 4.3~5.3 | 5.2~5.6 | 5.5~6.5 | 5.5~6.5 | 5~6 | 6~7 | 6~7 | 7.5~8.5 | 6~7 | 6~7 | 10~11 | |
| Chemical composition (%) | SiO ₂ | 5 | 5 | 12 | 12 | 12 | 34 | 50 | 3 | 6 | 7 | 45 |
| | Al ₂ O ₃ | 93 | 93 | 82 | 80 | 81 | 61 | 44 | 5 | 10 | 29 | 48 |
| | SiC | | | | 2 | | | | 89 | 80 | 60 | |
| Bulk density | 110°C × 24hrs. | 3.21 | 3.13 | 2.87 | 2.93 | 2.94 | 2.52 | 2.30 | 2.54 | 2.62 | 2.67 | 2.22 |
| | ()Tempx 3hrs. | 3.24 (1400) | 3.10 (1400) | 2.82 (1400) | 2.80 (1400) | 2.87 (1400) | 2.47 (1400) | 2.31 (1400) | 2.56 (1200) | 2.61 (1200) | 2.64 (1200) | 2.20 (1300) |
| Cold crushing strength (MPa) Bending strength (MPa) | 110°C × 24hrs. | 100 (18) | 83 (15) | 73 (16) | 103 (18) | 93 (19) | 44 (8) | 64 (13) | 15 (5) | 65 (14) | 74 (14) | 64 (10) |
| | 1000°C × 3hrs. | 140 (27) | 118 (25) | 108 (18) | 123 (22) | 123 (20) | 74 (11) | 103 (16) | 98 (27) | 147 (29) | 137 (23) | 59 (9) |
| | 1200°C × 3hrs. | | | | | | | | 98 (20) | 142 (27) | 132 (22) | |
| | 1300°C × 3hrs. | | | | | | | | | | | 59 (10) |
| | 1400°C × 3hrs. | 135 (29) | 137 (29) | 108 (18) | 142 (24) | 137 (23) | 88 (14) | 113 (19) | | | | |
| Permanent linear change (%) | 110°C × 24Hrs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | ()Temp.x 3hrs. | -0.3 (1400) | -0.2 (1400) | 0.3 (1400) | 0.7 (1400) | 0.3 (1400) | 0.2 (1400) | -0.3 (1400) | -0.02 (1200) | -0.2 (1200) | -0.2 (1200) | -0.5 (1300) |
| Porosity (%) | 110°C × 24Hrs | 7 | 9 | 11 | 11 | 8 | 12 | 9 | 16 | 12 | 12 | 13 |
| | 1000°C × 3hrs. | 15 | 17 | 20 | 18 | 19 | 16 | 16 | 18 | 15 | 16 | 22 |
| | 1200°C × 3hrs. | | | | | | | | 17 | 14 | 15 | |
| | 1300°C × 3hrs. | | | | | | | | | | | 22 |
| | 1400°C × 3hrs. | 14 | 17 | 22 | 18 | 20 | 17 | 16 | | | | |
| Thermal expansion(%) at1000°C | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.45 | 0.25 | 0.25 | 0.35 | 0.4 |
| Thermal conductivity (W/mK) | at 500°C | 3.7 | 3.7 | 3.1 | 3.1 | 3.1 | 2.4 | 1.7 | 9.0 | 9.0 | 6.7 | 1.3 |
| | at 1000°C | 3.6 | 3.6 | 2.8 | 2.8 | 2.8 | 2.7 | 2.0 | 10.2 | 10.0 | 8.3 | 1.4 |
| Standard package quantity(kg) | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | |
| Typical applications | Types of kilns Cement kiln | Types of kilns For thin layer installation | Types of kilns Cement kiln | Types of kilns Cement kiln | Alumium melting furnace,Aluminum holding furnace | Types of kilns Spalling resistance | Types of kilns | Types of kilns Rack for ceramics | Types of kilns Boiler | Types of kilns Boiler | Types of kilns | |

※The data shown here is a representative value, and no hallmark value.

※When the pumping method is used for the Rheo-flow(RF) products, please contact with our company or the distributor.