



Effective: Mar-16

Insulating Fire Brick

SPECIAL GRADES

		T 24	T 25	T 25-09	T 25-10	T 25AL	T 25HS	T 26B	T 26HS	T 26-10	T 135-12	T 140-12	T 150-11	T 160-12
Classification Group	ISO 2245 ASTM C 155	135-0.6-L	135-0.8-L	135-0.9	135-1.0	135-1.1	135-1.1	140-0.9	140-0.9	140-1.0	135-1.2	140-1.2	150-1.1	160-1.2
Classification Temperature	°C	1320	1350	1350	1350	1350	1350	1430	1430	1430	1380	1430	1540	1650
Density	ASTM C 134 g/cm ³	0.65	0.80	0.90	1.00	1.15	1.10	0.90	0.90	1.00	1.20	1.20	1.00	1.20
Cold Crushing Strength	Flat Edge ASTM C 133 MPa	2.0	2.4	4.0	6.0	8.5 9.5	7.0 10.0	4.0	4.0	5.8	15.0	10.0	7.0	5.0
Cold Modulus of Rupture	ASTM C 133 MPa	1.3	1.5	2.5	2.7	3.1	3.1	2.5	2.5	2.7	10.0	5.0	4.0	2.5
Permanent Linear Change	ASTM C 210 %	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-1.0	-0.5	-0.5	-1.0	-0.9	-1.0	-1.2
24h soak at Temperature, °C		1290	1350	1350	1350	1350	1350	1400	1400	1400	1350	1400	1510	1620
Linear Thermal Expansion	%	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	1.20	1.20	0.55	0.70
Reversible, Max.														
Deformation under Hot Load	ASTM C 16 %	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.5
69 kPa load, 1½h at Temperature, °C		1093	1204	1204	1204	1204	1204	1204	1204	1204	1204	1204	1204	1316
Thermal Conductivity	ASTM C 182 W/(mK)													
Mean Temperature, °C														
200		0.16	0.21	0.24	0.25	0.31	0.29							
400		0.18	0.24	0.27	0.29	0.35	0.32	0.29	0.30	0.33	0.41	0.41	0.31	0.36
600		0.21	0.28	0.31	0.32	0.39	0.36	0.32	0.32	0.35	0.44	0.44	0.35	0.40
800		0.24	0.32	0.35	0.36	0.43	0.40	0.35	0.35	0.38	0.48	0.48	0.39	0.44
1000		0.28	0.37	0.39	0.41	0.49	0.45	0.38	0.38	0.40	0.51	0.51	0.44	0.45
1200								0.42	0.41	0.43	0.55	0.55	0.49	0.49
Chemical Analysis	%													
Al ₂ O ₃		34.0	34.0	34.0	34.0	30.0	45.0	45.0	50.0	50.0	45.0	50.0	61.0	70.0
SiO ₂		63.0	63.0	63.0	63.0	66.8	51.0	51.0	45.9	45.9	51.0	46.7	35.8	27.8
Fe ₂ O ₃		1.3	1.3	1.3	1.3	0.8	1.3	1.0	0.9	0.9	1.3	1.0	1.0	0.7
TiO ₂		0.5	0.5	0.5	0.5	0.8	1.0	1.1	1.2	1.2	1.0	1.0	0.9	0.8
CaO + MgO		0.5	0.5	0.5	0.5	0.6	0.3	0.5	0.8	0.8	0.3	0.3	0.3	0.3
Na ₂ O + K ₂ O		0.9	0.9	0.9	0.9	1.0	1.4	1.4	1.2	1.2	1.4	1.0	1.0	0.5
Dimensional Tolerances														
Dimensions	mm	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
Out of Squareness	%	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5

The above physical and chemical properties of Insulating Fire Brick represent values obtained on standard squares in accordance with accepted test methods and are subject to normal manufacturing variations. This information is supplied as a technical service and may change without notice. Results should not be used for specification purposes, unless agreed with seller.

Form: TNCR (Special)
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Tianjin New Century Refractories Co., Ltd.
A-1207 ICTC, 59 Machang Road,
Tianjin, China 300203

Tel: +86-22-8558-9019
<http://www.tncrtd.com>
sales@tncrtd.com

Sales Office in Europe:



UNIC PRODUCTS S.r.l.
Via Cerca 26,
20090 Caleppio di Settala (MI), Italy

Tel: +39-2 9589 8184
<http://www.unicproducts.com>
info@unicproducts.com