

Associated Refractories Corp.

Refractory & Insulation Solutions

ASSOCIATED REFRACTORIES CORPORATION

B/233,Runwal Commercial Complex
Opp. Govardhan Nagar , L.B.S Marg ,
Mulund (W) , Mumbai – 4000 80. India.
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HI - TECH REFRACTORIES & CERAMICS

122/1/B, GIDC Kalol - 389 330.
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Deals In



ASSOCIATED REFRACTORIES CORPORATION

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Tel.: 022-22910610 Telefax: 022-25675202 .Mobile: - 9821649882 (Mr. Jinesh Shah).

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ABOUT US

Associated Refractories Corporation came into existence in 1989 to manage and cater to several refractory requirements of industries all over India.

We have utilized our resources to provide best in class solutions for our valued customers through superior quality & prompt service. Our services are wide spread across several industries like Forging,Rolling Mills,Steel, Ceramics,OEM manufacturers,Chemical,Glass,Textiles,etc.

To facilitate availability across India,we maintain huge inventories at our different warehouses. We also have several machineries at our disposal to provide special shaped Refractories to our valued customers. We also export to countries like Tanzania, Srilanka and Other Middle East Nations.

The Company has its production facility in the name of **“Hi Tech Refractories & Ceramics”** located at GIDC Kalol, Panchmahal, Gujarat. This backward integration helps us in providing superior quality products at most affordable prices.

Our sister concern **“Ceramics N Thermal”** also based in Gujarat is engaged in similar refractory activities to cater to northern and central regions of India.

We also provide turnkey based refractory & insulation applications to several process industries. We believe in long-term relationship with our clients and involve ourselves in every aspect of their growth. We along with every person involved in our mission would like to thank all our business partners, suppliers, clients for their invaluable support and promise to always stand by them in every sphere of life.

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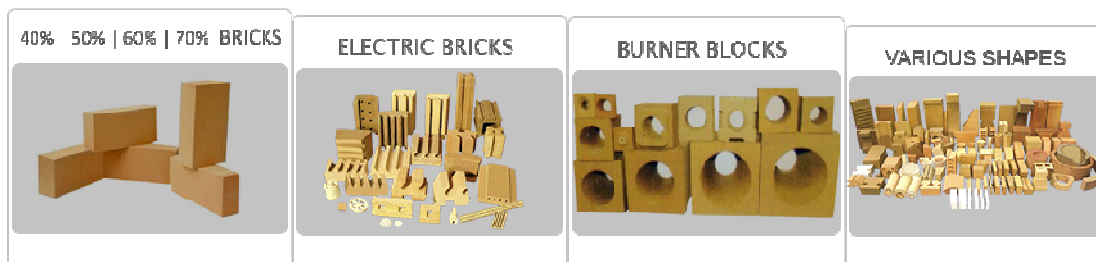
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Fire Bricks

Fire Bricks are made of hard dense material which forms basic building blocks for any thermal applications. They are available in several shapes,sizes and grades.



DRY PRESSED BRICKS	AR 40	AR 50	AR 60	AR 70	AR Siliminite
<u>Chemical Analysis</u>					
Al ₂ O ₃ % min.	40	50	60	70	58
Fe ₂ O ₃ % min.	2.80	2.90	3.10	3.30	1.70
SiO ₂ % min.	51.00	41.00	30.50	19.80	35.80
TiO ₂ % min.	2.60	2.60	2.80	2.90	1.50
<u>Physical properties</u>					
B.D (gm/ccs)	2.10	2.30	2.55	2.65	2.35
A.P.% max.	23	22	21	20	20
C.C.S.(Kgf/cm ²)min.	350	400	480	550	500
<u>Thermal properties</u>					
P.C.E (O ⁰ C) Min	32	33	34	35	35
R.U.L.(Ta ⁰ C at2 Kg/Cm ²)min	1390	1420	1450	1470	1500
P.L.C %max / 2Hrs.	± 1.00 at1420 ° C	± 1.00 at1450 ° C	± 1.50 at1500 ° C	± 1.50 at1510 ° C	± 1.00 at1550 ° C

NOTE :

- Size Tolerance: + 1.5% or 2mm.whichever is greater
- Shaping Dry Pressing.
- The Above Data Are On Average Result Basis.

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Insulation Bricks

Insulation bricks are light weight bricks having a lower thermal conductivity and basically used for fuel saving purpose.They are available in several shapes, sizes and grades.



DRY PRESSED BRICKS	CFI	HFI	HFK	Porosint Bricks
<u>Physical properties</u>				
Service Temp	1050 C	1150 C	1300 C	
Al ₂ O ₃ % min.	-	-	35-40%	
Fe ₂ O ₃ % min.	-	-	0.50-1.00%	
TiO ₂ % min.	-	-	0.50-1.00%	
Bulk Density	0.7-0.8 gms/cc	0.90-1gms/cc	0.90-1gms/cc	
<u>Apperant properties</u>				
B.D (gm/ccs)	2.10	2.30	2.55	2.65
A.P.% max.	23	22	21	20
C.C.S.(Kgf/cm ²)min.	350	400	480	550
<u>Thermal properties</u>				
P.C.E (O ⁰ C) Min	32	33	34	35
R.U.L.(Ta ⁰ C at2 Kg/Cm ²)min	1390	1420	1450	1470
P.L.C %max / 2Hrs.	± 1.00 at1420 ° C	± 1.00 at1450 ° C	± 1.50 at1500 ° C	± 1.50 at1510 ° C

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Castables

Castables are hydraulic setting. As the name suggest, they can be casted or molded to any shape which forms monolithic lining of furnaces.



	Firecrete Super	Whyt A	Whyt K	Whyt C	Insulyte 11
<u>Physical properties</u>					
Recommended Service Temp C (max)	1400	1750	1600	1500	1350
Refractoriness C (min) / Orton (min)	1680	1820/37	1683/31	1665/30	-
Dry Density kg/m ³ (min)	2500	2800	2200	2100	1100-1250
Thermal Conductivity	-	-	-	-	0.31
Linear Change % (max)	1.0 / 1400 2.0 C/3 hrs	1.0 / 1500 2.0 C/3 hrs	1.5 / 1550 C/3 hrs	1.0 / 1550 C/3 hrs	-
CCS Kg/cm ² (min) 110 C	350	600	350	350	35-45
Maximum Grain Size	5	5	5	5	-
<u>Chemical Analysis</u>					
Al ₂ O ₃ % min.	70	90	60	50	-
Fe ₂ O ₃ % min.	5	0.8	1	1.5	3.5

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Mortars

Mortars are basically used for brick bonding which imparts strength to structural construction of furnaces.

Hi Tex is a ready to use high temperature refractory mortar which sets at room temperature and provides a very strong bonding.



	Accoset -50 (N)	Accoset -50 (F)	Hi Tex
<u>Physical properties</u>			
P.C.E (O ⁰ C) Min	31.50 / 1699	31.50 / 1699	18
Grain Size .	0-1.5	0.05	Fines
Setting	Air setting	Air setting	Air setting
Service Temp. C	1550	1550	1200
Sintering Temp. C	1100	1100	1000
Density	-	-	52 Kgs/cu.ft. approx
Shrinkage	-	-	Not more than 3 %
<u>Chemical Analysis</u>			
Al ₂ O ₃ % min.	50	50	40
Fe ₂ O ₃ % min.	4.0	4.0	5.0

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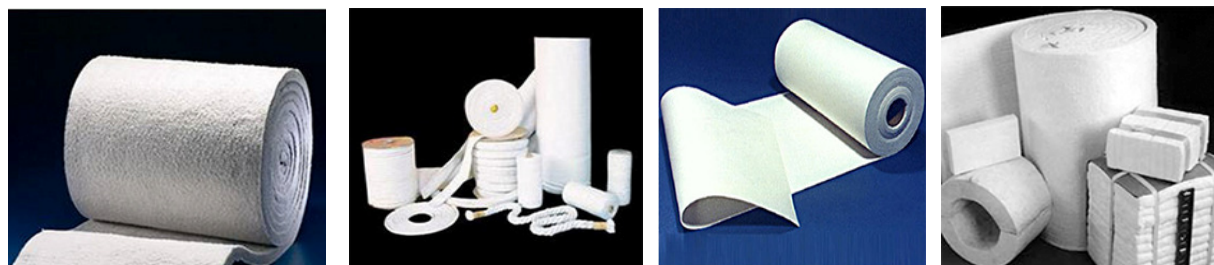
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Ceramic Fibre Blanket

Ceramic Fibre products are easy to use insulation material which can be given any shape. It improves thermal efficiency of furnaces and highly fuel saving. They are available in the form of blankets, boards, ropes, textiles, papers, modules etc.



<u>Physical properties</u>	STD Blanket	AZS Blanket	CERA Blanket	CERACHEM Blanket
Classification temperature ⁰ C	1260	1425	1260	1425
<u>Chemical composition (%)</u>				
Al ₂ O ₃ % min.	43-47	32-36	42-46	42-46
SiO ₂	53-57	44-48	54-58	54-58
ZrO ₂	-	16-19	-	-
Fe ₂ O ₃ % min.	0.1	0.1	0.1	0.1
CaO + MgO	0.08	0.08	0.08	0.08
Na ₂ O + K ₂ O	0.40	0.40	0.40	0.40
<u>Tensile strength (kgf/m²)</u>				
64 kg/m ³	1200	1200	2500	2500
96 kg/m ³	2000	2000	4500	4500
128 kg/m ³	3000	3000	6000	6000
160 kg/m ³	4000	4000	7000	7000
190 kg/m ³	5000	5000	7500	7500
Linear shrinkage % -24 hrs Max	3.2 (1200 ⁰ C)	3.5 (1400 ⁰ C)	3.0 (1200 ⁰ C)	3.0 (1200 ⁰ C)

<u>Thermal conductivity w/mk</u>	STD Blanket/AZS Blanket			Cerablanket/Cerachem Blanket		
Densities kg/m ³	64	96	128	64	96	128
400°C	0.12	0.09	0.08	0.12	0.11	0.10
600°C	0.20	0.14	0.13	0.20	0.16	0.15

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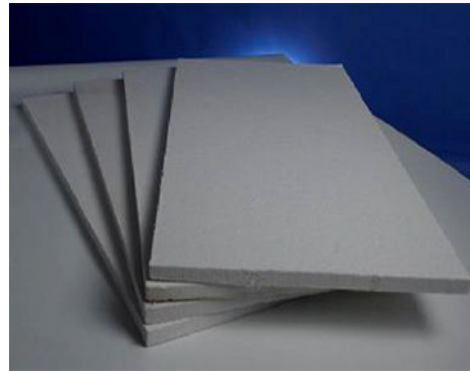
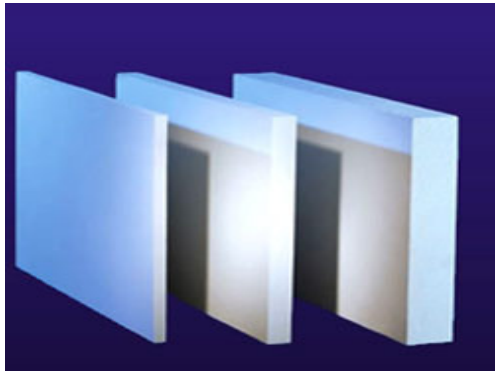
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Ceramic Fibre Board

Ceramic Fibre products are easy to use insulation material which can be given any shape. It improves thermal efficiency of furnaces and highly fuel saving. They are available in the form of blankets, boards, ropes, textiles, papers, modules etc.



<u>Physical properties</u>	STD Board	AZS Board	S Board	E Board	Baffle Board	
Classification temperature °C	1260	1425	1260	1100	1260	1400
<u>Chemical composition (%)</u>						
Al ₂ O ₃ % min.	> 40	> 29	> 44	> 30	> 40	> 24
SiO ₂	< 60	< 55	< 56	< 60	< 60	< 55
ZrO ₂	-	> 10	-	< 19.5	-	> 10
Loss on ignition %	< 10	< 10	< 10	< 10	< 10	< 10
Density (Nominal) kg/m ³	240	240	330	240	250-325	250-325
Modulus of Rupture Kpa upto 25 mm thick	200	200	700	125	150	150
Linear shrinkage % - 24 hrs (Max)	4.0 (1200°C)	4.0 (1350°C)	4.0 (1200°C)	4.0 (1200°C)	4.0 (1200°C)	4.0 (1350°C)
<u>Thermal conductivity w/mk</u>						
600°C (Mean temperature)	0.11	0.11	0.13	-	0.11	0.11

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Other Product

We also provide other products like Acid Proof Materials and subsidiary insulation products. List given below:

ANTI CORROSIVE PRODUCTS

- Acid Proof Tiles
- Acid Proof Bricks
- Epoxy Resins
- Furan Resins
- Phenolic Resins
- CNSL Resins
- Acid Proof Mortars
- Sodium Silicate
- Pottassium Silicate
- Special Coating Compound
- Special Screeds
- Mastics Primers
-

INSULATION PRODUCTS

- Glass Wool
- Glass Wool Mattresses
- Mineral Wool
- Rock Mineral Wool
- Mineral Wool / LRB Bonded Mattresses
- Resin Bonded Mattresses
- Hysil Block

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Services

We have team of experienced and well trained engineers for all kind of Refractories and anti-corrosive installation application. We undertake total turnkey projects and also do emergency repairs, shut down maintenance etc.

Why us?

- Total Refractory End To End Solutions
- Product Development And Material Selection
- Heat Flow Calculations
- Complete Refractory Installation And Guarantee
- After Service Support

Our Prestigious customers

- Ferrous And Non Ferrous Industries
- Furnace Manufactures
- Textile Industries
- Insulation Contractors
- Ceramics
- Foundries
- Glass
- Chemical Plant

Any Many Others....