





# SOUT DOOK

Established in the year 1972, we, "INDUSTRIAL MINERALS", are a reputed name, which is engaged in manufacturing, supplying, wholesaling and exporting a comprehensive range of superior-grade Ceramic Filters, Refractory Bricks, Castables, Ramming Mass and Insulation Material. The offered range of products is manufactured by our experienced professionals using optimum-grade raw material, which is procured from the reliable vendors of the markets. Further, our experienced professionals properly manufacture the entire range in adherence with the industry laid standards & norms. These products are highly appreciated among the clients for their longer functional life, purity, excellent functioning and effectiveness. We are an ISO 9001:2008 Certified Company.

For the smooth execution of all the business operations, we have constructed a sophisticated infrastructure facility. Our state-of-the-art manufacturing unit is well-equipped with the latest machinery and advance technology, which helps us in carrying out all the business activities with ease. Further, in our in-house testing unit, our quality controllers carefully check the entire process in various pre-defined parameters. Also, we assure to deliver the consignments at patrons destination within the promised time frame. Owing to all these factors, we have garnered a huge clientele all across the East Asia, Middle East and South East Asia. Some of the leading names, we are catering to same few leading names such as Kalyani Carpenter Special Steels Ltd. and Ispat Industries.

Under the notable guidance of our reputed mentor, 'Mr. Hemendra Shah', we have been able to carve a unique niche in the International Market. His firm belief in the fair and ethical business practices have helped us win the trust and confidence of our worldwide patrons.

# Why Us?

Our organization is engaged in manufacturing and exporting a comprehensive range of refractory bricks, castables, ramming mass and insulation material. Offered range of products is manufactured by our experienced professionals using optimum-grade raw material, which is procured from the reliable vendors of the markets. These products are widely used in the various industrial applications.

Following are the factors that helps us in staying ahead of our counterparts:

- We provide for detailed inspection for the commodities
- In case of exports we also provide inspection agencies viz SGS
- Modernized infrastructure facility
- Financial stability
- Best CHA services
- We supply in all qualities, right from AL-30% to PCPF & ULC quality

# **Our Mission**

industrial minerals
was incorporated to
consistently offer refractory
materials in India and abroad
with good manufacturing
practices, assured deliveries
and impeccable services, so as
to ensure complete customer
satisfaction. In the business of
heat management, our products
should offer immense value to
our customers.





Through reliable products, we will help our customers to minimize plant shutdowns, maintenance costs and heat losses and maximize their operational efficiency, productivity & earnings.

We always believe that our growth in business status and stature depends solely upon the economy and efficiency of operations that our customers derive, from performance of its products as well as service support extended to them.

With this introduction we welcome you to the qualified league of businessmen specializing on the commodities listed above. Let the dialog begin with the exchange of ideas and markets know how, which definitely would give way to a point of revenue generation.

We have earned a large client base. The industries we server are:

- Foundry Industry
- Steel Plant
- Rolling Mills
- Fertilizer Plants
- Chemical Industry
- Sugar Plants









# **Our Team**

Behind the immense success of our organization is a team of adroit professionals. These professionals hold the vast knowledge and experience of this domain that helps us in offering a qualitative range of Ceramic Filters, Refractory Bricks, Castables, Ramming Masses and Insulation Material. For manufacturing these products our professionals follow industry laid standards & norms. Further, to carry out all the processes smoothly, all our professionals utilize available resources wisely.

Following are the members, our team comprises:

- Chemical experts
- Quality controllers
- Warehousing & packaging
- Administrative
- Logistic

# **Our Infrastructure**

For manufacturing and offering a qualitative range of products, we have developed a state-of-the-art infrastructure facility. Our world-class facility is well-equipped with the latest machinery and advance technologies that helps us in carrying out all the business operations without any hassle. Further, for operating all processes in a organized manner, we have segregated our premises into various units. To handle the responsibilities of these departments efficiently, we have appointed a team of hard working professionals.

Following are the departments on that we have categorized our premises:

- Manufacturing
- Quality controlling
- Warehousing & packaging
- Administrative





# **CERAMIC PRESS FILTER**

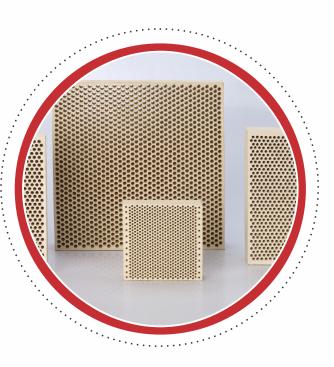
Our company **INDUSTRIAL MINERALS** has launched a new item of Cerafil Filters we have been quiet successful with our launching, the key to this result is a perfect blend of efficiency & effectiveness of our product with a shine of economy range.

Manufactured from high grade Alumina based refractories

- Are made under high pressure & are dense.
- Are dimensionally accurate

Posses uniform pores and distribution.

The demand for consistent quality castings with lowest levels of inclusions have made conventional gating systems filter dependant. The variety and abundance of filter types are making choice difficult for the foundry man. Most of them are efficient and effective in keeping dirt away, but they are quite expensive. Ceramic filters are used to remove impurities from metals. Because ceramic filters can withstand extremely high temperatures, their use in foundry and investment casting processes continues to be essential.



#### **EFFICIENCY** + **EFFECTIVENESS** + **ECONOMY** in our range offer a competitive edge.

#### Ceramic Filters are:

- \* Specially made for foundry
- \* Cost effective
- \* Totally indigenous
- \* Different shape & size & width
- \* Dimensional accuracy.

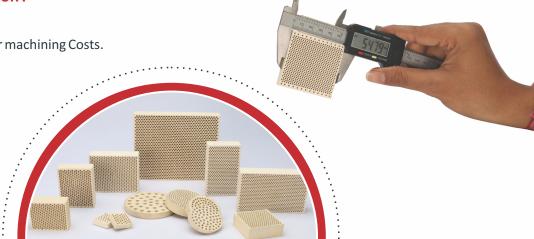
Our cerafil filters can deliver to temperature as high as 1450°C. Since made from selected quality ceramic and refractory material having good resistance to abrasion and erosion against liquid material.

# Following are the departments on that we have categorized our premises:

- Manufacturing
- Quality controlling
- Warehousing & packaging
- Administrative

# **Advantages of Metal Filteration:**

- 1. Dross/Inclusion Reduction.
- 2. Improved Machinability/Lower machining Costs.
- 3. Improved Surface finish.
- 4. Improved Productivity
- 5. Good Filteration Efficiency
- 6. Good Consistency
- 7. Consequently Capacity
- 8. Good Dimensional Stability







# **TOLERANCE**

Range of tolerance	(length & width)
Up to 40mm	+0/ -1.00 mm
40mm to 120mm	+0 / -2.00mm
Over 120mm	+0 / -3.00mm
Thickness	+0 / -1.00mm

32

37

37

36

1592

1382

1382

2669

Square Ceramic Filter

Item Code	Dimensi	ions Thickness	Number of Hole	Hole Dia (mm)	Open Area %	Pouring Area (mm²)
INA 402						
IM-103	40x40	15	168	2.00	33	528
IM-104	40x40	12.5	188	2.00	37	590
IM-107	40x40	12	264	1.70	37	599
IM-109	49x49	15	294	2.00	38	923
IM-111	50x50	12.5	310	1.90	35	878
IM-112	50x50	21	64	3.75	28	707
IM-114	50x50	12.5	279	2.17	41	1031
IM-115	50x50	12.5	294	2.00	37	923
IM-116	50x50	15	294	2.00	37	923
IM-117	50x50	22	294	2.00	37	923
IM-118	50x50	20	104	2.80	29	640
IM-119	55x55	12.5	389	2.00	40	1221
IM-120	55x55	12.5	261	2.30	36	1084
IM-121	55x55	12.5	468	1.70	35	1062
IM-122	55x55	12.5	279	2.20	38	1159
IM-123	55x55	12.5	687	1.50	40	1213
IM-125	66x66	12.5	537	2.00	39	1686
IM-126	75x75	12.5	585	2.30	43	2429
IM-127	75x75	15	585	2.30	43	2429
IM-128	75x75	22	585	2.32	43	2429
IM-130	75x75	15	621	2.00	35	1950
IM-131	75x75	22	621	2.00	35	1950
IM-132	75x75	20	513	2.50	452	517
IM-133	100x100	20	295	4.50	584	689
IM-134	100x100	20	952	2.30	403	953
IM-135	100x100	22	952	2.30	403	953
IM-136	100x100	20	1050	2.00	333	297
IM-138	134x134	20	1340	2.50	376	574

Rectangle Ceramic Filter

Iter

IM-204

IM-208

IM-209

IM-212

50x100

50x75

50x75

75x100

21

15

22

22

Round Ceramic Filter

Round Taper Ceramic Filter

IM-309	47	10	58	3.75	37	640
IM-310	47	10	169	2.00	31	531
IM-311	47	10	63	3.00	26	445
IM-316	50	10	58	3.75	33	640
IM-317	50	10	197	2.00	32	619
IM-330	80	10	39	5.50	17	926

507

374

374

850

2.00

2.17

2.17

2.00

40/42 IM-402 10 27 4.00 24 339 50/56 74 2.70 423 IM-405 10 17 333 IM-409 58/60 12 1.70 27 755 IM-412 62/64 15 242 24 760 2.00 IM-416 70/66 10 27 5.00 14 530 IM-419 80/2 15 122 3.50 22 1173





# **SIC-CERAMIC FOAM FILTERS**

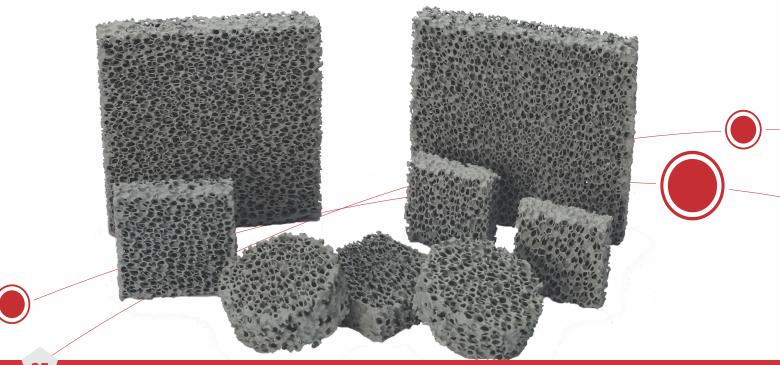
SIC Ceramic Foam Filters can be used for ferrous & non-ferrous molten metals. During the melting process few of the Metallic Elements forms Oxides, which are non-Soluble in the molten metals. The Oxide & other non soluble foreign material causes serious foundry defects in castings. Such impurities are in non soluble form & these are easily removed with the help of CERAMIC FOAM FILTERS.

SIC Ceramic Foam Filter is specially for grey and ductile iron casting filtration, also it can be used for non-ferrous application. The filter's open pore structure was specially developed for the filtration of cast iron and prevents the ingress of slag, metal reaction products, inoculant residues or sand grains into the mould cavity. The inherently large surface area is well suited to intensive filtration and even finely distributed slag particles are retained both on the filter surface and in the filter structure.

Such high filtration effectiveness, combined with a reduction in turbulence, often allows gating systems to be greatly simplified and reduced in size. The filters can be positioned vertically, horizontally, or diagonally in a suitably designed runner system. By using these filters in the moulding process, almost all Floating & Suspended non Soluble particles, Foreign particles can be removed to get defects free castings. The cost of Ceramic Foam Filters are absolute negligible, compare to loss due to rejection & time loss.

SIC Ceramic Foam Filter's outstanding thermal shock resistance and high strength properties were developed for superior performance in extreme iron or aluminum and copper based alloy foundry applications. Silicon carbide ceramic foam filters are mainly designed to improve the quality of iron castings. The filter can effectively remove non-metallic inclusions including slag and dross from the molten metal stream. Additionally, they aid in reducing turbulence in the gating system.

We can make sizes of Refractory Ceramic Filter as per customers' requirements.







# **SILICA SAND**

- We are pleased to announce that we are the Associate Marketing Partner with Univ Minerals Pvt. Ltd. for Silica Sand.
- We are glad to inform you that now we are ready to Supply Wash Silica Sand in a very competitive rate.

·····

- Foundry Silica Sand Sand casting, also known as sand molded casting, is a metal casting process characterized by using sand as the mould material. Silica has a high melting point 1610 degrees C.
- This enables castings to be produced by pouring molten metal into moulds made out of silica sand.
- Silica Sand is a type of sand that is composed of 95% silicon. It is mainly used in the making of glass and creating moulds and castings in Industrial Processing. Silica is also used in sand blasting, adding texture to slick roads, and in the production of ceramics and equestrian surfaces.
- There are further uses for silica sand in the production of mortar and concrete, in the Oil and Gas industry for improved production drilling, and for water filtration.
- We have high purity silica sand ideal for fracking and other down hole operations which we are currently sourcing from various parts in the US.
- We have access to different sands with the following grades and favorable crush (K) factor: 20/40, 30/50, 40/70, and 100 Mesh.
- So we welcome your inquiries for Wash Silica Sand which you use in your Foundry.







# **EXOTHERMIC SLEEVE**

#### EXOTEC SLEEVES

A range of highly exothermic cum-insulating Sleeve developed to cater to the exclusive needs of the Steel and SG Iron Foundry industry.

#### **APPLICATION/FUNCTION**

The Sleeves are lined as Open or Blind Feeders to ensure proper feeding and directional solidification of the casting in conjunction with our COVEREX -707 APC Compound. Based on sound methoding principles, they act as vital and powerful tools in the hands of the Methods Engineer/Foundryrnan. It improves the yield, productivity and profitability of the Foundry through Direct reduction in Riser VOLUMES and Increase in Solidication Extension Factor.



#### **PROPERTIES**

- For reliability and consistency of performance the Sleeves are evaluated only on the basis of Modulus Extension Factor (M.E.F.) Test conducted on a CUBE.
- In addition, the Feeding Efficiency for various shape Factors are determined by LMW Method. The complete Ready Reckoner Chart of Exotec Sleeves for various shapes and sizes are furnished in the Annexures.

#### **CERAMIC TUBE**

Our ceramic tubes are extensively used as furnace tubes in extreme working environments for principle laboratory/analysis furnaces. The furnace tubes are normally supplied as dense mullite (EM60) or alumina (EA998) for these applications.

We have complete in-house capabilities to supply custom-design tubes and rods with special dimensions & tolerances on request. We are able to produce extremely tight toleranced tubes through our specialized manufacturing techniques. Adding flanges, drilling holes and cutting slots in all our standard materials is also available.

# **APPLICATION**

- Furnace work tubes
- Heating element supports
- Temperature measurement
- Kiln furniture
- Vacuum furnace parts
- Electrical insulators



#### **CERAMIC BUSH**

We have in store for our clients a wide assortment of Ceramic Bushes which finds usage in Automotive, Electronics and varied related industries. Made in line with the set industry standards using approved quality base materials, these are resistant to high temperature and tough working conditions & therefore used in varied heating applications.

The Ceramic Bushes are known for their accurate dimension, application specific design, pressure resistance; hence used for thermal and electrical insulation of screw joints in varied industries. These are available in diverse sizes and specifications & can also be custom designed as per the clients' requirements.



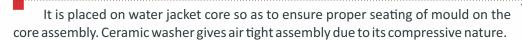




# **CERAMIC FERRULE WASHER**

#### APPLICATION OF CERAMIC FERRULE WITH WASHER

Ceramic Ferrule Washer Assembly is used in core room on cylinder Head water jacket core.



Most of the Cylinder Block and Head manufacturing foundries reject castings due to blow holes.



Foundry experts try to reduce defects by providing extra gas vents, increasing pouring temperatures and/or time etc. While manufacturing Cylinder Heads and water jacketed Blocks, wedge plugs core prints are provided on water jacket cores.

To remove the gas from wedge plug core prints, cores are drilled and gas vents are provided on cope moulds to allow core gas to escape from the water jacket cores.

If there is any gap between core print and mould, there are chances to spread the core gas in mould cavity, which in turn accumulate in mould area and casting gets rejected due to blow hole.

Ferrule washer assembly is placed on the head water jacket core by drilling holes on the water jacket. A ferrule avoids falling of ceramic washer in the mould and also provides passage for release of gases there by avoids gases related defects in the casting.

To eliminate this danger, off late, foundries are using ceramic wool washer with ferule. Foundries are able to reduce rejection due to blow holes by 2 to 3 % by placing washer and ferule at wedge plug core print area.

#### **CERAMIC BREAKER CORES**

Industrial Minerals introduce one more product in our Bucket list that is Ceramic Breaker Core. Breaker cores are designed to be a cost effective alternative to sand cores while providing some additional benefits.

Ceramic breaker cores are sintered mullite and contain no volatile combustibles. The thermal conductivity properties of the ceramic prevent heat loss which can cause premature cooling of the metal at the juncture.

High mechanical strength and smooth, hard surfaces facilitate separation of the riser from the casting. Labor savings are realized due to easy riser removal.







# **REFRACTORY CASTABLES**

We are manufacturing and exporting a qualitative range of Industrial Castables. The offered range of castables is processed by our professionals using premium quality ingredients that are procured from the reliable vendors of the market.

These castables are widely appreciated among the patrons for their brilliant attributes such as purity, effectiveness and accurate composition. Leveraging on our year of experience and in-depth knowledge of this domain, we are offering excellent quality High Purity & Dense Castables. Our experienced professionals have processed these High Purity & Dense Castables using excellent quality ingredients that are procured from the reliable vendors of the market.



### REFRACTORY FIRE BRICKS

Refractory Fire brick is a block of refractory ceramic material used in lining furnaces, kilns, fireboxes, and fireplaces. A refractory brick is built primarily to withstand high temperature, but will also usually have a low thermal conductivity for greater energy efficiency. Fire bricks have an aluminium oxide content that can be as high as 50-80%. Usually dense firebricks are used in applications with extreme mechanical, chemical, or thermal stresses, such as the inside of a wood-fired kiln or a furnace, which is subject to abrasion from wood, fluxing from ash or slag, and high temperatures.

The refractory bricks we offer to our clients include Fire Bricks, Sillimanite Bricks, Low Iron & Dense Bricks, Insulating Bricks and Acid Resisting Bricks & Mortars, to name a few. All our offered bricks are manufactured using high-grade refractory ceramic material under the guidance of sedulous professionals. Also, our professionals ensure to manufacture each product at par with the defined industry guidelines, thus meeting demands of glass furnaces, cement kilns, enamel kilns, steel making furnaces, pottery kilns and coke ovens.



#### **CERAMIC FIBRE BLANKETS**

#### GENERAL CHARACTERISTICS

Ceramic Fibre Blanket has the following outstanding characteristics:

- Low thermal conductivity & heat storage
- Resistance to thermal shock & chemical attack
- ► High heat reflectance
- Good sound absorption
- Low shrinkage
- High tensile strength & resiliency
- Asbestos free & unlimited shelf life

#### **TYPICAL APPLICATIONS**

- CPI heaters & heat treatment furnaces
- High temperature pipe, duct & turbine insulation
- Boilers, kilns & ovens insulations
- Tube seals, gaskets & expansion joints
- Fire protection & acoustic insulation









