BHARTIA
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A Passion for Excellence

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Vision

We envision adhering to our Core Values of being a reliable market leader and simultaneously offering unsurpassed Organizational Excellence in all our undertakings...

Carburisers
Inoculants
Lustrous

We, the **Bhartia** Group

Bhartia Group is a diverse organization dealing in manufacturing of Carbonaceous Additive for Green Sand based Foundry and Alloys, Fluxes and Carburiseors for Ferrous and Non-Ferrous Foundries, OPC 43 Grade Cement, Packed Drinking Water, Low Ash Metallurgical Coke, HDPE Bags, and Medical Oxygen & Nitrous Gas, primarily. The company also has broaden its horizons into mining of limestone and dolomite, trading of raw materials required by steel and foundry industries and retail chain of supermarkets in Nagpur city under the brand "Apna Bhandar", farming of around 450 acres of cultivated land and construction of a township around Nagpur.

The organization envisions a veracious tomorrow diversified to meet the expectation of evolving society and therefore the market. Their aspiration paved way to the Corporate Office in Mumbai, Headquarters at Nagpur and various Branch Offices all around India. The company is ever embryonic and successfully functioning and responding to the requirements of the market.









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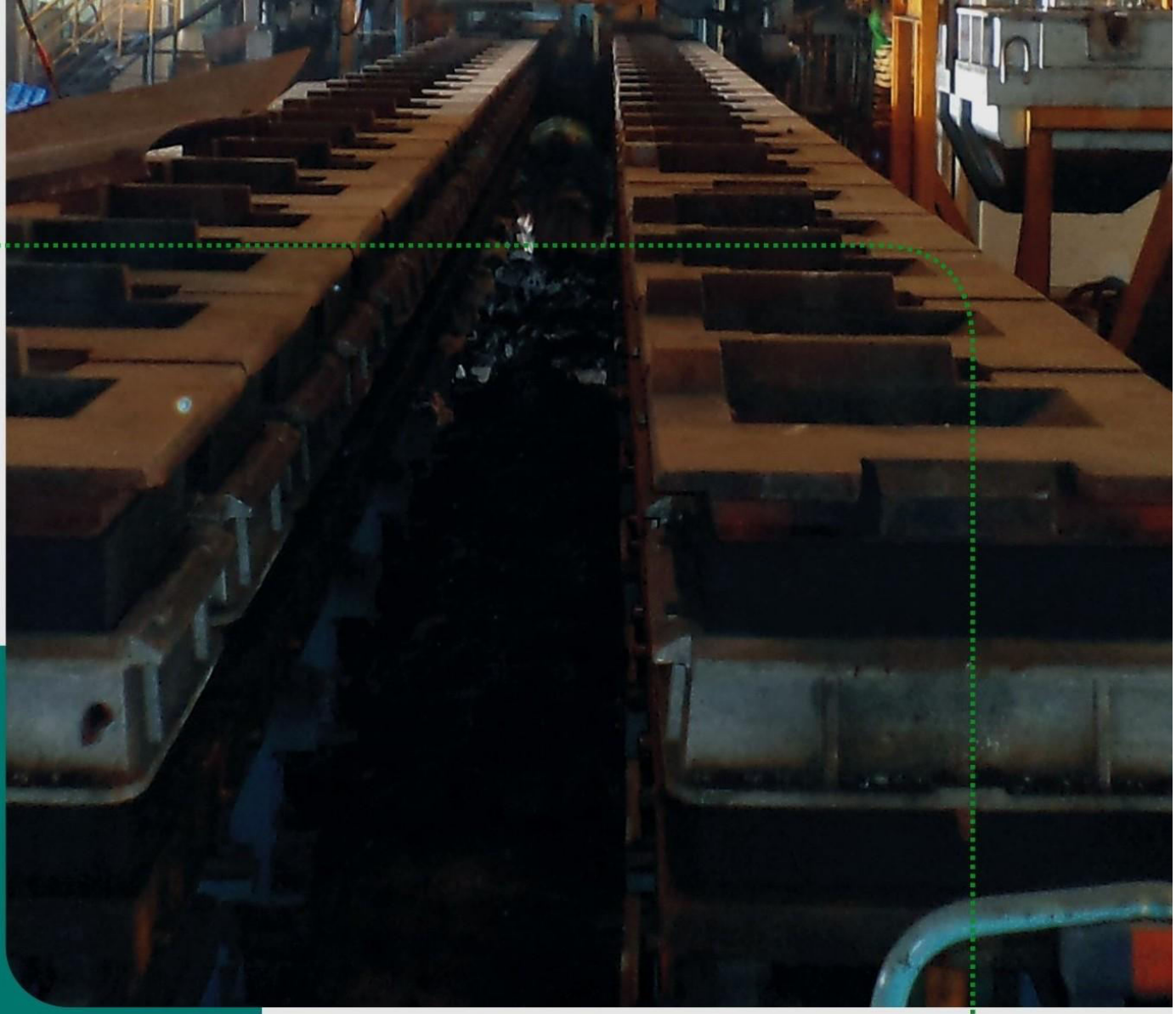
Bhartia Pulverisers

BP

Bhartia Pulverisers is ISO 9001:2000 Certified Unit and a product of Bhartia Group. Since its inception in 1983, BP has been a pioneer in manufacturing Carbonaceous Additives entail in Sand Based Casting Industries. BP is a prominent name when it comes to excellence and time bound delivery since more than three decades.

The manufacturing unit of BP is based in Chandrapur, Maharashtra and soon another unit would be functional in Andhra Pradesh. The organization is proud of the fact that BP was one of the forerunners in manufacturing specially processed & blended Coal Additives in the Green Sand Base Molding lines in India. As the casting industry is evolving, the demand is also aggregating in both Indian as well as global markets, paving way to production of Carbonaceous Additives. Thus, the proficient R & D Dept. of BP backed by experience of over 3 decades is leaving no stone unturned in order to develop New Carbonaceous Additive that can mend the surface finish, dimensional stability, dispenses fewer sand carryovers and provides cleaner castings at knock out.



Lustrous For All Types Of Molding Line

Particulars

- BP has the principal capacity in INDIA to produce Carbonaceous Additives - 55000mt pa
- It is the chief producer of Carbonaceous Additives in India - 36000 mt pa

- BP ensures that its Tech Team assists foundries to sort their sand related issues and produce regular Sand Testing Reports for the same.
- The organization encompasses a dedicated R&D team for enhancement and new product development like tasks.
- Product Consistency, Quality Assurance, On-time Delivery and Dispatch Status Update are some of the major requisites of BP.

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Lustrous

The high pressure molding systems have become increasingly popular in India. Such molding system gives moulds which altogether require different combination of Carbonaceous Additives properties. There's need of special type of customized Carbonaceous Additives, hence Bhartia Pulverisers have produced "LUSTROUS".

Lustrous Blends

Lustrous Regular

Specs : VM : 50-60% , Ash : 7%max, FC : By difference

Advantages :

- Reduce imperfections due to the rapid reaction between the silica sand mould and the oxidized surface of molten iron
- Its thermal decomposition creates voids, which allow for the expansion of the silica sand grains
- Improve sand peel from casting at shakeout
- Improve flowability of sand
- Less sand carryover
- Produce smoother, cleaner casting surface
- Minimize imperfections

Lustrous Low Ash

Specs : VM : 45-50%, Ash: 5% max, FC : By difference

Advantages:

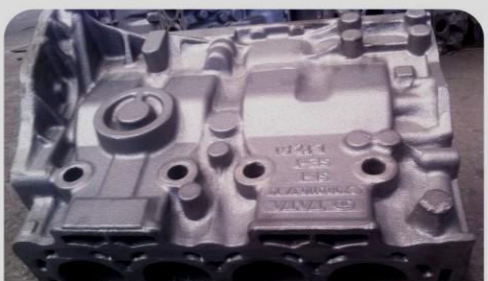
- Balance volatile matter and loss on ignition
- Most commonly used
- Good for both conventional and high pressure lines

Lustrous High Carbon

Specs : VM : 35-40%, Ash : 7% max, FC : By difference

Advantages:

- High LOI content
- Gives more refractoriness
- High carbon content
- Low gas evolution



Lustrous For All Types Of Casting

Lustrous S3

Based on European Seacoal, BP had indigenously developed Lustrous S3. A carbonaceous additive having swelling capacity. During pouring hot metal into the moulds, it heats lustrous S3 to swell making it to enter the pores between sand grains providing plasticized bonding so that the volume expansion of the sand grains, caused by structural transitions in SiO_2, can be accommodated without fracture of the cast face mould surface, thus reducing the chance of expansion defects also.

Specs : VM : 35-45% , Ash : 6% max, FC : By difference

Advantages :

- Lustrous carbon that forms a thin film with high adhesion on sand grains
- It swells and clogs the intergrain spaces and compensation of thermal stress from microdilatation of sand grains
- Physically expands itself to fill the spaces between the sand grains

Lustrous P3

Specs : VM : 47 - 57% , Ash : 6.5% max, FC : By difference

Advantages :

- Lustrous P3 is a unique blend developed by R&D dept of BP, which meets demands for todays' High Pressure Moulding Lines
- Speciality of Lustrous P3 is that, it changes to coke at high temperature, this action of Lustrous P3 fills voids at the mold/ metal interface

Lustrous CS

It is a synthetic substitute for coal dust in green sand system. It has consistently very low ash, high volatile matter, excellent flowability. Lower ash & higher lustrous carbon content makes it possible to greatly reduce the percentage of new sand addition in the system sand.

The required percentage addition depends on sand parameters, but typically 0.3 to 0.5%. Also the casting finish & peel are excellent, thus substantially reducing the shot blasting cycles.

Specs : VM : 74.0 to 78.0%, Ash : -3.5% max. FC : By difference

Advantages:

- Lower ash built up in the system sand & higher permeability
- Lower new sand additions reducing cost
- Adaptable to mechanized addition due to excellent flowability
- Lower moisture additions leading to lower pin holes/blow hole porosity in castings
- Excellent as cast finish & peel resulting in lower shot blasting costs

Coatings

BP COAT's sand mould and core coating products gives the best casting surface finishes at the highest possible level of operational efficiency. As we use only the highest quality refractory components; BP COAT's products provide excellent surface performance, particularly in critical applications. The range of products has been specifically engineered so that they can be applied by dipping, flow coating, brushing, swabbing and spraying.

Coating Blends

- **BP COAT 1551 :** It is a mixed refractory coating with Graphite; Iron Oxide and Mixed refractory as fillers. This water based Coating is ideally suited and developed for Resin Sand cores and Molds. BP COAT 1551 offers a clean peel off resulting in improved surface finish. With use of BP COAT, sand fusion is mitigated in sand fusion prone castings. The coating has viscosity of 55-65 Baume If adjustment of viscosity is required, appropriate water quantity must be added.

- **BP COAT 1552 :** This is a Special-Grade Aluminium Silicate and Alumina- based product with water as the liquid carrier. BP COAT 1552 offers a clean peel off resulting in improved surface finish. It has high insulating properties and grants low reactivity to metal oxides, thus, giving excellent performance at high temperatures. The coating is permeable, allowing the gases generated from the decomposition of the binders to escape across the coating film without building excessive gas pressure. It also has good anti-veining properties. If adjustment of viscosity is required, appropriate water quantity must be added.

- **BP COAT 1553 :** This is an Aluminium Silicate and Mixed Refractory based product with an aqueous carrier. It has excellent suspension stability. It has good anti-veining properties. If adjustment of viscosity is required, appropriate water quantity must be added.

- **BP COAT 1554 :** This is a Special-Grade Aluminium Silicate based product with water as the liquid carrier. It has excellent suspension characteristics. BP COAT 1554 offers a clean peel-off resulting in improved surface finish. It has high insulating properties and grants low reactivity to metal oxides, thus, giving excellent performance at high temperatures. It also has good anti-veining properties. If adjustment of viscosity is required, appropriate water quantity must be added.

- **BP COAT 1555 :** This is a Zircon water-based, high solids, thixotropic coating with excellent suspension properties.This coating is suitable for resinous binder backgrounds and gives very good surface finish. This coating has a higher filler content, which gives better surface coverage per Kg of wash as compared to normal coatings. Due to high gel strength, Water seepage into the moulds and cores is reduced and hence chances of surface weakening are also reduced. This coating is therefore suitable for organic binder backgrounds. Organic content of BP COAT 1555 is much less than other coatings hence generating lower gas.

- **BP COAT 1556 :** BP COAT 1556 is Graphite water-based Foundry Coating. It is ideally suited and developed for Resin Sand cores and Molds. BP COAT 1556 offers a clean peel off resulting in improved surface finish. With use of BP COAT, sand fusion is mitigated in sand fusion prone castings, grants low reactivity to metal oxides and excellent performance at high temperatures. It also has good anti-veining properties. BP COAT 1556 is well suited for cast iron, S.G. Iron & Grey cast iron casting.

- **BP COAT 2014 :** This is a general purpose ready to use Zircon alcohol based coating suitable for heavy iron, copper and steel castings. Due to its high refractoriness it prevents sand fusion and metal penetration at high pouring temperatures. Although generally used for steel castings it is recommended for integral cores surrounded by molten metal even for cast iron castings.

- **BP COAT 2015 :** This is a ready to use Graphite coating which can be applied to moulds and cores by spraying or Brushing. This is a general purpose coating for all types of Iron, Aluminium and Copper based Alloys. Being Alcohol / Spirit based they are particularly suitable for Sodium Silicate bonded moulds and cores for which water based dressings cannot be used.

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Bhartia Alloys

BA

Bhartia Alloys is an ISO 9001:2000 Certified Unit in Chandrapur under Bhartia Group. The association manufactures Carburisers for Carbon Pick-up in foundries under the brand C, C+, C++. The company also sizes ferro silicon and ferro barium inoculants, Si-INOC & Ba-INOC.

Carburisers

Grades of Carburisers

C++

C++ is the subsidiary product that after the process of machining electrodes, is mainly used in metallurgy industry as carbon raisers.

Chemical	F.C: 99% min, S: 0.03%
Size	1-5mm, 1-10mm
Properties	Top-quality Carbon Additive, High Carbon, Low Sulphur and Nitrogen
Usage	Improve the Carbon content in ductile iron foundry, specially used in SG Grade.

We can supply C++ as per the specifications mentioned below :

	C++
F.C	98.5% min
S	0.05% max
Ash	0.8% max
V.M	0.8% max
H_2O	0.5% max
Sizes	1-5mm, 1-10mm, 1-20mm,1-50mm

Other specs can be supplied on clients' request

C+

C+ is used to improve the Carbon content in steel-melting and ductile iron foundry. The reason for use in Metallurgical Industry is the high fixed Carbon (Mid Sulphur level) .

Chemical	: F.C: 95% min, S: 0.3%
Sizes	: 1-5mm, 1-10mm
Properties	: High fixed carbon, moderate sulphur
Usage	: Improve the carbon content in steel-making and ductile iron foundry

We can supply different grades of Calcined Anthracite Coal, specifications are mentioned below

	A	B
F.C	95% min	93% min
S	0.2% max	0.3% max
Ash	4% max	6% max
V.M	0.5% max	0.5% max
H_2O	0.5% max	0.5%max

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C

C (CPC) is a manufactured carbon product produced at a limited number of oil refineries. Petroleum coke results from the thermal processing of residual oil, which has been cracked or otherwise processed to remove low boiling fractions.

Chemical	F. C: 98.5% min,
S	1%
Sizes	1-5mm, 0-10mm, 0-25mm
Properties	High fixed carbon, with high sulphur
Usage	To increase Carbon content in Cast Iron Foundry.

	A
F.C	98% min
S	1% max
Ash	1% max
V.M	1% max
H2O	1% max
Sizes	0.5-5mm, 0.3-5mm, 0-10mm, 5-10mm.1-50mm

Other specs can be supplied on clients' request

GP

C++ (GP) is a high quality artificial graphite with specially processing to form columnar. It is widely used in the metallurgy foundry air-furnace, the cementation makes up the carbon.
We can supply C++(GP), as specifications mentioned below :

Chemical	F.C: 90 %min, S: 0.05%
Size	1-5mm, 1-10mm
Properties	Top-quality Carbon Additive, High C, Low S and N.
Usage	Improve the Carbon content in steel-making and ductile iron foundry.

	GP
F.C	90% min
S	0.05% max
N	0.03% max
Ash	8% max
V.M	0.5% max
H2O	0.8% max
Sizes	1-5mm, 1-10mm,1-50mm

Inoculants

BA specialised Ferro Silicon inoculants offer highly effective inoculation for both Grey and Ductile / S.G. Iron with excellent solubility and enhanced cleanliness.

Si-Inoc

Inoculants are added in liquid cast iron in order to provide the best and consistent characteristics in the final casting. They are used to control matrix structure and avoid casting defects.

Application & Effect:
Si-Inoc is a highly effective and readily soluble group of inoculants for Ductile Iron. The combination of Aluminium and Calcium suppresses carbide formation in thin sections and improves nodule count and shape.

Sizes:
Available in 0.2 x 0.7 mm, 0.7 x 2 mm, 2 x 6 mm

Packaging:
25 Kg Bags, Drums, Bulk Bags.

Chemical Composition:

Al	Ca	Si
3.5 - 4.5%	0.5 - 1.0%	70 - 80%

Ba-Inoc

Ferro Silicon Barium Base inoculants are also available with us. Our experienced and knowledgeable technicians can advise on the best specification and sizing for furnace, ladle or in stream addition of ferro silicon inoculant.

Application & Effect:
Ba-Inoc is a versatile and durable group of Barium based Ferro Silicon based inoculants for grey and ductile cast iron. Barium, Aluminium and Calcium gives the alloy an excellent inoculating effect over a wide range of applications.

Sizes:
0.2 x 0.7 mm, 0.7 x 2 mm, 2 x 6 mm

Packaging:
25 Kg Bags, Drums, Bulk Bags.

Chemical Composition:

Al	Ba	Ca	Si
1.5% max	0.8 - 1.2%	0.8 - 1.2%	65 - 75%

Bhartia Commitment

- It possesses prime Sales Offices network in Nagpur, Raipur, Kolhapur, Ahemadnagar, Belgaum, Coimbatore, Chennai, Hyderabad, Kolkata, Gurgaon, Faridabad, Ahemdabad and Rajkot.
- Since our products are single sourced, we are striving hard to thwart deficit. Consequently, we have storage houses in strategic locations like Nagpur, Kolhapur, Belgaum, Hyderabad, Raipur, Kolkata and Faridabad.
- BP retains resilient technical support with 3 Sand Testing labs comprising of 6 chemists in Chandrapur, Nagpur & Belgaum.

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Corporate Office :
20, New Cotton Market, Nagpur - 440 018 Maharashtra (India)
Ph :+ 91-712 - 8666555 Fax : + 91-712-2721484
e-mail : info@bhartias.com web: www.bhartias.com