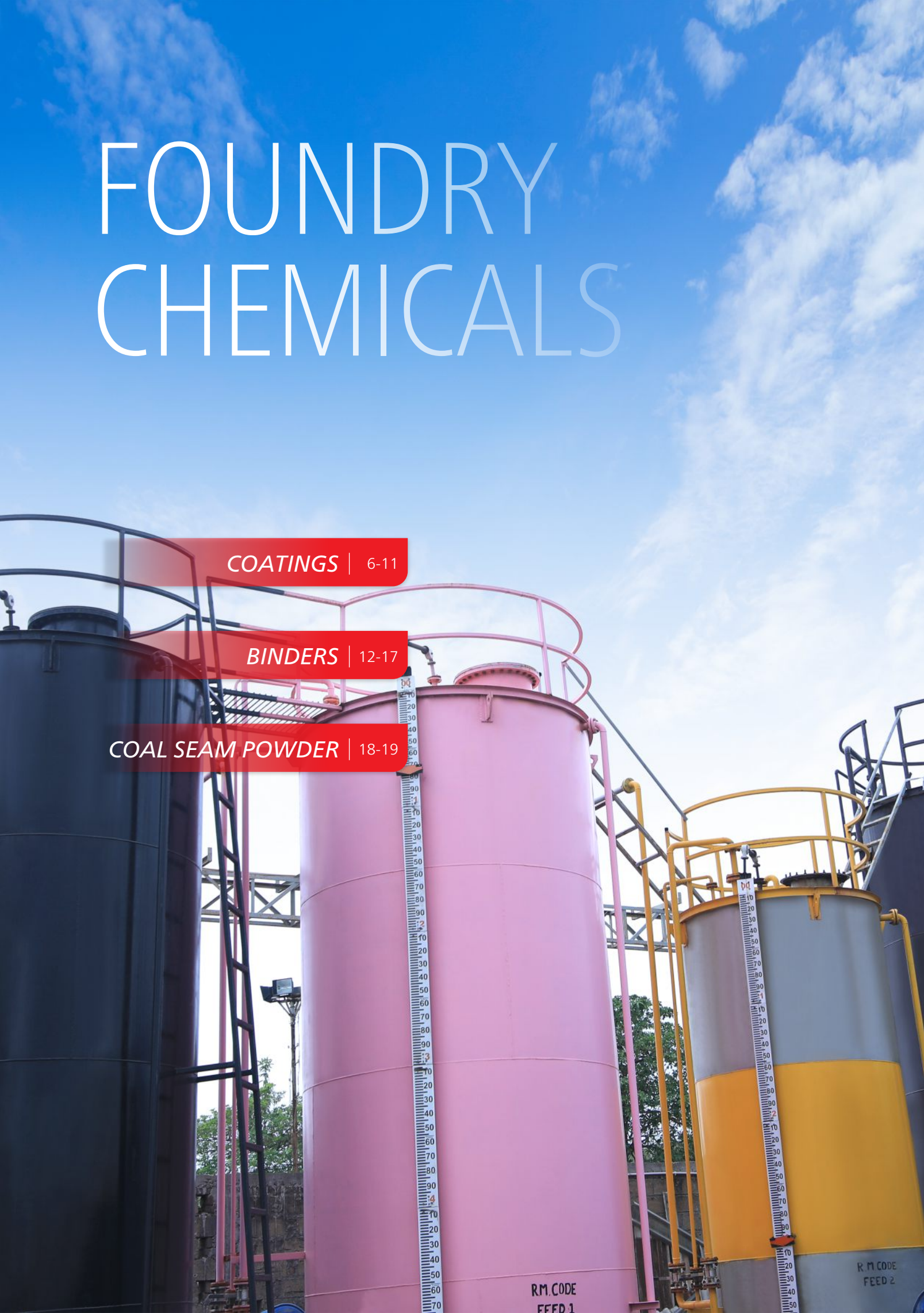
CAST YOUR WAY TO EXCELLENCE

FOUNDRY RAW MATERIALS

FEEDCHEM

FOUNDRY CHEMICALS



Feedchem (India) Pvt. Ltd.

Feedchem is the pioneer producer of refractory coatings, No-Bake Binders, allied products and engineered Lustrous Carbon Additives for use in metal industry.

Innovation is the key to our success and that's the core principle of Feedchem. We are experienced, passionate and creative problem solvers whose main purpose is to develop practical and elegant solutions for complex problems in applied chemistry. We have been pushing boundaries in every possible way in terms of trending technology and accelerating the competency of our customers across industries.

We closely co-ordinate with the foundries and consistently adjust our products to ensure their technical and practical suitability. We always keep in mind that the products meet the benchmark of quality and perfection. Customer satisfaction stands right in front of us as reliability and transparency is what makes us go long and quick.

In this industry, the differentiation matters a lot in terms of fineness and richness of the products. Our main strategy is to cater quality products to our esteemed customers based on four major performance metrics:

- Enhanced Surface Finish
- Reduced Sand Related Defects in Casting
- To reduce Consumption of Sand Additives and Cleaning Shots
- To increase the dimensional stability of Castings

Our company has a strong representative chain across India. They are skilled enough to resolve all kinds of technical issues. We believe in organizing periodic and persistent training sessions for skill development to make a cooperation with the current line of products.

Vision

To go global in terms of morality, honesty, transparency, reliability as a preferred partner for the metal industry.

We always aim to take our associates at the highest level for their exceptional efforts.

Mission

To cater best quality product, extraordinary services and time-bound delivery with cost-effectiveness. We are dedicated to continuous and restructured innovation that involves forward-thinking and reactiveness. We want to determine our business as a matter of the best foundry consumable suppliers in manufacturing all our products so that our associates can feel proud of them.

Why Feedchem?

At Feedchem, we offer innovation-driven research with our product development approach. We concentrate precisely on the customer demands and market trends due to progressively complex requirements such as Casting Defect Prevention, Reduced Emissions, Cost-Efficiency, and Overall Casting Quality. These requirements need much more than outstanding technologies and strong partnerships. We believe that top notch Research & Development which focuses on productivity, main performance parameters, and environment-friendly solutions are important.

Feedchem for your foundry product and service requirements:

- Cost-Effective Pricing
- On-Time Delivery
- Highly Experienced Foundry Experts
- Optimized Casting Foundry Rejection
- Innovative Patterns & Designing Methods
- Quality to the Perfection
- On-Site Regular Technical Support
- Reliable & Trustworthy

COATINGS

Coatings from Feedchem is much more than a layer between the molten metal and sand. They mainly regulate the surface quality of casting and thoroughly cure casting defects. As all the coating systems are mainly characterized by the fact that they are providing outstanding casting results, slight fettling work as well as increased efficiency and productivity in the pouring procedure. Using water-based coatings gives other supreme benefits. No solvents are used to do dilution and that's why water-based coatings become emission-free. We do not pose any risk to associates as well as reduce the dilution cost. Therefore, foundries can dispense with the installation of extra equipment as well as need not accept any additional fire safety determines.

Alcohol-based coatings usually provide great advantages like the molds and cores dry quicker or the alchohol could be turned off meaning higher productivity and an assured amount of short-term supply.

Graphite Refractory Coatings

Graphite Paste

Graphite Refractory Coatings are mostly in the semisolid form. They are preferred as the foundry mould coatings for all GI and SG cast iron sections. Such coatings are suitable for foundry moulds/cores that are produced from Sodium silicate, CO2 and other elements like oil sand, shells, cold box, hot box, and others.

Advantages:

- It enables the uniform coating of refractory material through proper suspension.
- These coatings provide higher refractory properties to reduce the cost of fettling with a lower sand burn.
- Gives a complete and uniform coverage, which ensures the good casting finish usually free from veining, fusion and penetration. This ultimately lowers the casting cleaning cost.

Graphite Ready for Use

These ready to use graphite coatings are quite popular in the manufacturing sector. It is recommended by the experts for all types of ductile, and grey cast iron coating needs, especially for manufacturing of ingot moulds. They are also used for different binder systems like green sand, Sillicate-CO2, and other such materials.

Advantages:

- The suspension qualities of the ready to use qualities help create uniform coating on the mould cores.
- A mixture of high refractory graphite helps create great casting cover that reduces fettling.

Solvent Based Coatings

Product	Application				Binder					Metals						
	Dipping	Flow Coatring	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT GS PASTE			■	■					■			■	■	■	■	1.02 - 1.025
FEEDCOAT GS POWDER			■	■				■	■			■	■	■	■	-
FEEDCOAT GS 451 RX	■		■	■		■		■	■			■	■	■	■	1.00 - 1.07
FEEDCOAT GS 451 RX (IP) I	■		■	■		■		■	■			■	■	■	■	1.00 - 1.07

Water Based Coatings

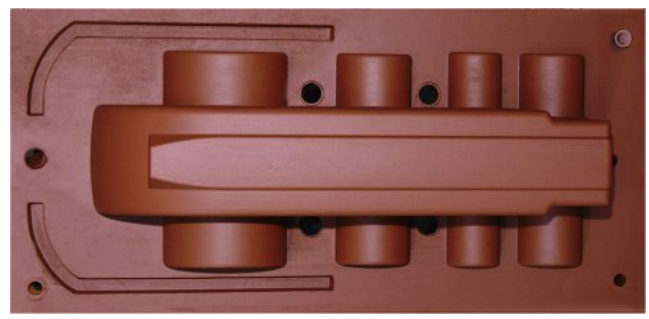
Product	Application				Binder					Metals						
	Dipping	Flow Coatring	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT GW POWDER	■	■	■	■		■	■		■			■	■			-
FEEDCOAT GW PASTE	■	■	■	■		■	■		■			■	■			1.15
FEEDCOAT GW 555 P	■	■	■	■		■	■		■			■	■			1.40

Aluminium Silicate Refractory Coatings

Aluminium Silicate based refractory coatings are very good for CI/SG iron casting. It has very low reactivity with the metal oxides in the slurry. Aluminium blends in with the silicon oxide to create properties like thermal shock resistance, and even corrosion resistance. It helps prevent casting defects, with compatibility to different organic binders.

Advantages:

- Usage of Aluminium Silicate can help manufacturing process through higher thermal resistance.
- It helps avoid casting defects, and creating smoother surface finish.
- The mixture of Aluminium, and Silicate helps create suspension properties that can provide uniform cover.



Gear Box Mould

Solvent Based Coatings

Product	Application				Binder					Metals						
	Dipping	Flow Coatring	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT AS 154 H (S)	■	■	■	■		■	■	■	■			■	■			1.13 - 1.18

Water Based Coatings

Product	Application				Binder					Metals						
	Dipping	Flow Coatring	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT AW 151 (M)	■	■	■	■		■	■		■			■	■			1.45 - 1.55
FEEDCOAT AW 151 CBX	■	■	■	■		■	■		■			■	■			1.45 - 1.55
FEEDCOAT AW 153	■	■	■	■		■	■		■			■	■			1.45 - 1.55
FEEDCOAT AW 156 M	■	■	■	■		■	■		■			■	■			1.45 - 1.55
FEEDCOAT AW 157 T	■	■	■	■		■	■		■			■	■			1.45 - 1.55
FEEDCOAT AW 158	■	■	■	■		■	■		■			■	■			1.45 - 1.55
FEEDCOAT AW 154	■	■	■	■		■	■		■			■	■			1.45 - 1.55
FEEDCOAT D 25			■											■	■	1.44 - 1.46

Zircon Refractory Coatings

Zircon Paste

Zircon coatings are very good for prevention of the metal penetration. The Zircon paste helps form an effective refractive layer between the sand and molten metal. It also helps the moulds and cores to prevent cracking or veining. The paste helps improve the quality of different CI, and SG cast iron. They are suitable for Silicate-CO2, Green Sand & all organic binder systems based on the grade.

Advantages:

- Zircon paste helps reduce the metal penetrations with grain-level protection.
- Better suspension properties ensure uniform coverage of refractory fillers.

Zircon Powder

Zircon alcohol base powders are great for cast iron. These fine zirconium dioxide powders are a great refractory coating option for molten metal filters. These powders can be used for all types of carbon and alloy steel castings with improved grain structure.

Advantages:

- Superior suspension characteristics incorporated helps uniform coating application
- Higher refractoriness of the powder creates better surface finish.

Solvent Based Coatings

Product	Application				Binder					Metals						
	Dipping	Flow Coatring	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT ZS 151 FL	■	■	■	■		■	■	■	■	■		■	■			1.78 - 1.85
FEEDCOAT ZS 152	■	■	■	■		■	■	■	■	■		■	■			1.55 - 1.85
FEEDCOAT ZS 153 (M)	■	■	■	■		■	■	■	■	■		■	■			1.70 - 1.80
FEEDCOAT ZS 154	■	■	■	■		■	■	■	■	■		■	■			1.55 - 1.65
FEEDCOAT ZS POWDER	■	■	■	■		■	■	■	■	■		■	■			-
FEEDCOAT ZS 156	■	■	■	■		■	■	■	■	■		■	■			1.60 - 1.70

Water Based Coatings

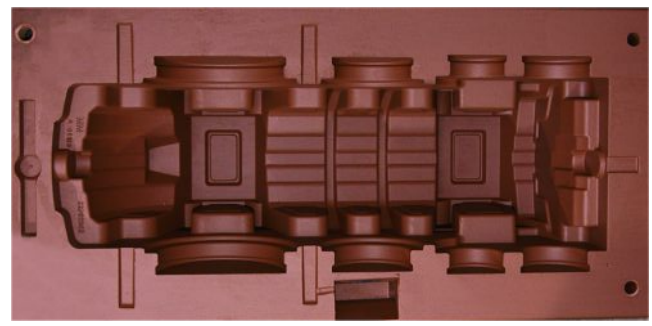
Product	Application				Binder					Metals						
	Dipping	Flow Coatring	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT ZW 151	■	■	■	■		■	■		■	■		■	■	■	■	2.15 - 2.25
FEEDCOAT ZW 152	■	■	■	■		■	■		■	■		■	■	■	■	2.15 - 2.25

Mixed Refractory Coatings

These mixed refractory coatings are available in both paste and ready for use forms. They are recommended for all types of heavy GI/SG Iron castings and steel castings. Mixed refractory coatings are specially chosen to imbibe more heat resistance and integrate binder systems like silicate CO2 & Green sand.

Advantages:

- High refractoriness of the coating gives better surface finish & reduce fettling cost
- Blend of high quality refractories ensures good casting peel
- Gives a complete and uniform coverage of the cores with fillers. This in turn ensures a good casting finish free from fusion and penetration



Gear Box Mould

Solvent Based Coatings

Product	Application				Binder					Metals						
	Dipping	Flow Coatring	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT 601	■	■	■	■		■	■	■	■			■	■			1.30 - 1.45
FEEDCOAT 602	■	■	■	■		■	■	■	■			■	■			1.30 - 1.45
FEEDCOAT 201	■	■	■	■		■	■		■	■		■	■			1.75 - 1.85

Water Based Coatings

Product	Application				Binder					Metals						
	Dipping	Flow Coatring	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT 101	■	■	■	■		■	■		■			■	■	■	■	1.40 - 1.60
FEEDCOAT 102	■	■	■	■		■	■		■			■	■	■	■	1.40 - 1.60

Magnesite Refractory Coatings

Magnesite Powder

They are recommended for all types of light to heavy section manganese steel castings and are suitable for molds / cores made of Silicate - CO2 system and other sand systems.

Advantages:

- They prevent reaction of molds with molten metal through high refractoriness.
- Reduce impact of casting defects during the process.

Magnesite Ready for Use

They are Magnesite alcohol base coatings in ready to use form. They are recommended for all types of light to heavy section Manganese steel castings and are suitable for mold / cores made out of silicate CO2 and other sand systems.

Advantages:

- Good suspension properties ensure uniform coverage of the coating
- Gives better surface finish and reduces fettling cost due to high refractoriness.

Automotive Component Casting

Solvent Based Coatings

Product	Application				Binder					Metals						
	Dipping	Flow Coating	Spraying	Brushing	Epoxy-SO2	Cold Box	Hot Curing System	Silicate/Resol-CO2	No-Bake	Steel	Manganese Steel	GI	DI	Copper	Aluminium	Density (Undiluted) g/cm3
FEEDCOAT MA	■	■	■	■			■	■	■		■					1.35 - 1.45

BINDERS

The foundry industry embraces many metal types and production processes, producing an array of cast components in a multitude of different sizes. To acknowledge this diversity, Feedchem have developed a variety of binder ranges to ensure that product and process are optimised. All Feedchem products are supported by a team of technical experts who can advise and help you to develop optimised binders for best Quality Castings.

Organic binders are synthetic resins, which are cured by the addition of a separate hardener or catalyst.

FEED ALPHA

Alkaline Phenolic Binder

Feed alpha is high-performance Potassium/Sodium-based alkaline cold setting phenolic binder cured by Ester. This process offers numerous advantages over existing and more traditional binder systems and can be successfully used with a wide of metals and alloys.

Benefits

- Significantly improved levels of mechanical reclamation in both ferrous and Non-ferrous foundries
- Low hardener consumption
- Low levels of monomer evolution during mould production, casting and shakeout
- Overall Good environmental properties
- Excellent mold and core strength
- High temperature plasticity

Application

Production of Cores and moulds, especially for Steel Castings.

Hardener of Feed Alpha (Ester)

Catalyst for Feed alpha is a colourless liquid. The process makes use of a binder system which is cured by the use of a liquid organic ester hardener. The hardener product range of Feed Alpha optimized addition & superior mixed sand bench life to curing time ratios to meet specific needs of each customer application.

Open Valve Casting

FEED COLD

Cold Box System

Feedcold is a benzylic ether type synthetic binder for coldbox process. It is remarkable for its high thermal stability and extreme long bench life (2hr-3hr) of the sand mixture. It is characterized by very low sticking tendency and low moisture sensitivity. This is a three-part system with hardliner and liquid amine catalysts which cures the binder.

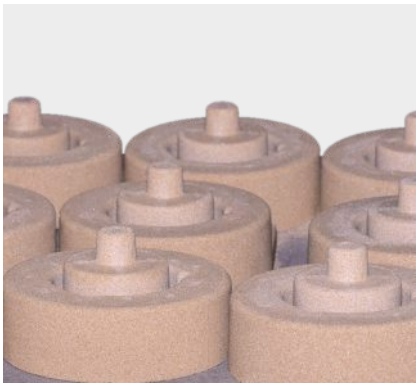
Benefits

- High Productivity - Large volume high speed production
- No tooling heat required, Cures at room temperature
- Cost effective to run in comparison to heat cured systems
- Good dimensional accuracy, very good flow ability of sand mix
- Cores can be handled immediately
- Cores can be cast as early as possible
- Shelf life of resin is long

Disc Brake Mould

Application

The cold box process is mainly used in casting of cores for automotive castings due to its excellent dimensional accuracy. Cores for iron castings can be made. They are suited for high productivity as well as for large cores which require rapid strength increase.



Cold Box Cores

FEED PHENOL

Phenolic Binder Cured with Acid

Feed phenol is a cold curing Nitrogen free liquid phenolic formaldehyde resole resin. This resin production of core's and molds for grey cast iron, ductile iron, cast steel and non ferrous heavy metal.

Benefits

- This product is Nitrogen free
- Basic raw materials are indigenous
- Initial handling strength is good
- Reclaim ability is good
- Improved casting quality
- Low Sand to Metal Ratio
- Baking is not required, thus baking ovens are eliminated

CNC Machine Tool Casting

Application

Production of cores and moulds for gray cast iron, ductile iron, cast steel and non ferrous heavy metals.

Base Plate Mould

Electric Stator Housing Mould

Fan Cover Mould

FEED FUR

Furan Binder Cured By Acid

Feed fur is an acid cured Furan No Bake Binder System. It is especially designed and manufactured to meet requirement of Indian foundries with Indian sands. The product is suitable for making smaller/larger cores or molds using continuous mixer/using conventional sand mixer. It has flexibility to accommodate use of reclaimed sand upto 90% this system gives excellent hot strength and eliminates metal penetration and sand expansion defects.

Benefits

- Improved casting quality
- Low Sand to Metal Ratio
- Low pattern Wear as sand mixes are very free flowing
- Baking is not required, thus baking ovens are eliminated
- Excellent resistance to penetration
- Greatly reduces cleaning cost
- No wall movement, reduces pin holes specially in steel & SG iron castings
- Low viscosity of Binder allow sand to flow freely and good compaction is achieved
- No special storing condition. Low storage life due to more stability, particularly suitable for hot climate

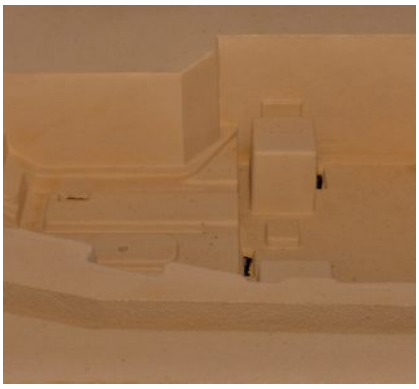
Electric Stator Housing Casting

Application

It is excellent for making large steel castings where high hot strength and low gas is required.

Core of Machine Tools

Machine Tool Casting Moulds



FEEDHARD

Catalyst for Feed phenol & Feed Fur

Feed hard is made by using PTSA, xylene sulphonic acid and lactic acid to activate the polymerisation process when mixed with binders. Bench life can be controlled from 3 minutes onwards depending upon the climatic conditions as well as the proper selection of binders and hardeners.

Engineering Equipment Casting

Alternator Casting

Fan Cover Casting

Single Part Binder

Air Set

Feed Set is used to make moulds and cores in Foundry

Benefits

- Any grade(washed/unwashed) of Silica sand can be used
- Very good surface finish of casting can be achieved.
- Mould release is good.

Application

It is excellent for making open core mold boxes.

Electric Stator Housing Casting

COAL SEAM POWDER

Used in the dry sand and greensand moulding process coal protects mould surface against molten metal action. While the metal comes in contact with the mould surface having coal dust, a steamy envelope is created that fights against the fusion of metal and sand. Additives like cellulose and pitch are used as per the metal casts.

- Castings cool more slowly, preventing cracking
- Coal dust increases both greensand and dry sand strength
- Reduces expansion, scabbing, and metal penetration
- Prevents sand burn
- Imparts a cleaner finish
- Aids in separation at knockout
- Lessens rat tailing and other expansion defects
- Coal dust contains low concentrations of trace metals, PAH, and sulphates.
- Better collapsibility for green sand Mould.
- Better peel-off at knock-out stage.

Coal Seam Powder

Suitability

Green sand Mould making on hand moulding, jolt-squeezed and high-pressure Machine moulding

Application

Can be used for Grey , SG iron castings and High carbon metals for manufacturing.

1) Coal Seam HLCA

V. M. - 40 to 50%
Ash – 7.00% Max.
Fixed Carbon - By difference

2) Coal Seam LCA

V. M. - 50 to 55%
Ash – 8.00% Max.
Fixed Carbon - By difference

3) Coal Seam CA

V. M. - 55 to 65%
Ash – 6.00% Max.

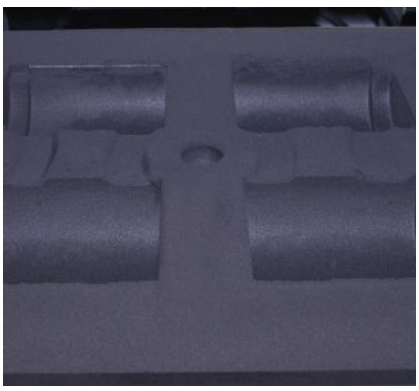
4) Coal Seam

V. M. - 45 to 55%
Ash – 9.00% Max.
Fixed Carbon - By difference

Aqua Culture Part Casting

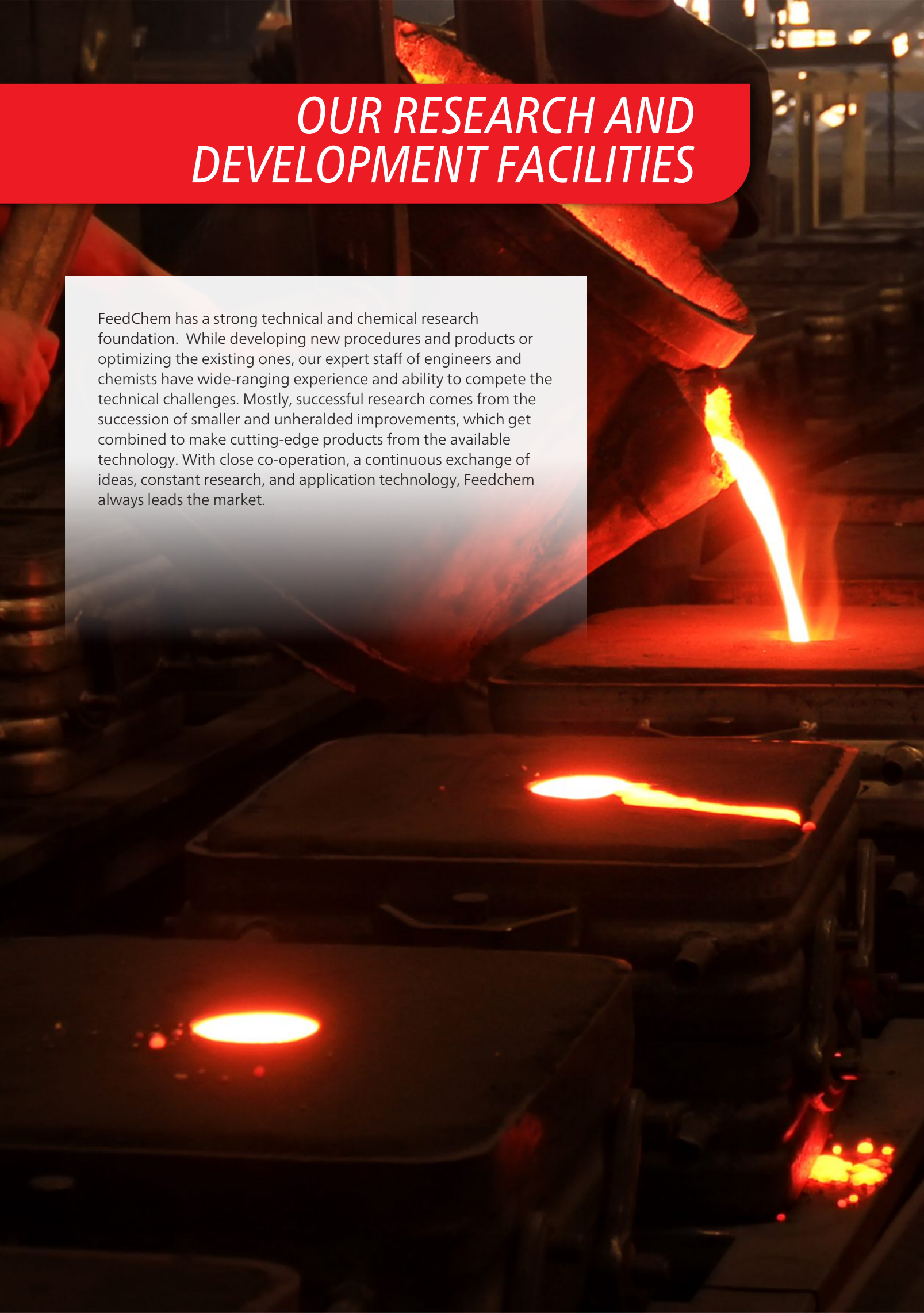
Grinding Media Balls

High Pressure Molding Line



Molds for High Pressure Molding Line

OUR RESEARCH AND DEVELOPMENT FACILITIES



FeedChem has a strong technical and chemical research foundation. While developing new procedures and products or optimizing the existing ones, our expert staff of engineers and chemists have wide-ranging experience and ability to compete the technical challenges. Mostly, successful research comes from the succession of smaller and unheralded improvements, which get combined to make cutting-edge products from the available technology. With close co-operation, a continuous exchange of ideas, constant research, and application technology, Feedchem always leads the market.

In House Foundry

Feedchem has in-house foundry facilities and all the products are tested and trailed in-house and then shipped. Here in the foundry we simulate our customer's processes and find solutions to their problems . Our fully-equipped research foundry has facilities like Core Package Assembly, Mould Production, and Foundry Process Representation. In house foundry allows us to gain precise knowledge of the processes on-site at the and create optimized solutions.

State of the Art Laboratories

Our laboratories are process-oriented, works around the clock for meeting real-time requirements of the Chemical Process Production and Development.

In our Metallurgical laboratories we examine and Analyse the graphite structure and metal matrix. In our Sand laboratory, we can examine high-temperature materials, testing tensile compression, strength, and transverse loading. We can also do Sand Characterization and Analysis.

Feedchem
at your Door Step!

From idea to complete production, our team can design your procedure, help in production, resolve problems, provide process recommendations.

Whether you want to scale up your new products or trying any new process applications, we can work closely to make sure that you get a smooth and successful experience.

Our all-inclusive facility provides everything you require to produce smaller batches of fine ingredients or chemicals to big quantities in our chemical plant. Our technological capabilities cover an extensive range of product categories and processing conditions. We can offer a wide-ranging solution to fit all your processing requirements. Call Feedchem now for all your foundry requirements. We will analyze everything and provide you the best product.

A customer is the most important visitor on our premises.

He is not dependent on us. We are dependent on him.

He is not an interruption on our work. He is the purpose of it.

He is not an outsider on our business. He is part of it.

We are not doing him a favour by serving him.

He is doing us a favour by giving us an opportunity to do so.

~ Mahatma Gandhi

FOUNDRY RAW MATERIALS

FEEDCHEM (INDIA) PVT. LTD.

A: Plot No. 28 to 38, "Gokul Industrial-C"
Survey No.234 and 256, J K Industrial Zone, Village - Piplana,
Rajkot-360030, (Gujarat-INDIA)

P: +91 81400 03456, +91 98797 85260
E: info@feedchem.co.in
W: www.feedchem.in