Arudra Coatings

Assets Protected, Asset Life Enhanced.

High Performance Protective Coating Products & Services for Heavy Industries.

2025

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Arudra Engineers Pvt Ltd Overview

Since 1983, Arudra has been at the forefront of offering turnkey engineering products & services to process industries, particularly across Power, Oil & Gas, Petrochemicals and Iron & Steel.

Arudra continues to stand as one of the leading Chemical Cleaning & NDT/Inspection service providers in India, having executed projects across 200 public & private sector thermal power plants.

We have evolved over the years by integrating our offerings into a range of performance improvement products & services that help our industry clients solve a range of maintenance issues and save enormous costs over the course of operation.

Arudra believes in offering the best-in-class products & services at all times and have over the years strived to adapt international best practices by liaising with expert engineering counterparts across USA & Switzerland.

In 2022, Arudra expanded it's presence in the South East Asian market by establishing Arudra Maintanance & Supplies Inc (AMSI) - a solely owned subsidiary company of Arudra in the Philippines. Such strategic expansions have greatly helped increase our value chain and enhance our industrial client base by a large factor.

Arudra's values revolve around safety and quality and our well experienced engineers abide by international environment & safety standards with no compromise on quality of products & services provided.

Emphasis on quality and a global outlook have helped Arudra secure large engineering contracts at a global level and we take pride in serving process industries across 15 countries in a range of turnkey engineering activities.

Arudra Product & Service Verticals

- Manufacturing of Material Handling Systems-Pullys, Idlers & Conveyors.
- Industrial Chemical Cleaning Services.
- NDT, Inspection & Mechanical Maintenance Services.
- Industrial Protective Coating Products & Services.
- Surface Treatment-Cathodic Electrodeposition (CED), Powder Coating & Shot Blasting Services.

Arudra Coatings

MAJOR INDUSTRIES WE SERVE

Power

Oil & Gas

Petrochemicals

Fertilisers & Chemicals

Cement

Iron & Steel

Water & Wastewater Treatment

Hydropower

Marine & Offshore

Arudra Industrial Coatings Overview

Arudra Coatings is the Industrial Coating arm of Arudra Engineers Pvt Ltd. , Arudra liaises with world class and highly experienced protective coating & lining technology suppliers from USA (Duromar Inc – www.duromar.com) and Switzerland (plastocor international SA – www.plasrocor-international.com), to solve the most challenging corrosion & erosion problems that process industries encounter.

Arudra Coatings offers end to end solutions – from product manufacturing to coating installations – with expert NACE certified engineers, state of the art application machines and globally positioned distributors, to carryout the most challenging and turnkey coating installations at highest quality standards.

The coating ranges are all 100% solid (Zero VOC) polymeric epoxy systems, that are uniquely designed to handling varying ranges of temperatures, chemical attacks and velocity and those that adhere to a wide grade of surfaces.

Our International Collaborations

DUROMAR®

- Over 50 years of expertise in addressing erosion, corrosion, and process control challenges across industries.
- Pioneers in polymeric epoxy technology, offering 100% solids, zero-VOC systems for demanding industrial applications.
- Proven track record across FGD, Cooling Water Pipelines and Storage Vessel protection across industries with numerous successful coating and lining projects since the the 1970's.
- Collaborative development with FGD system designers and engineers to deliver state-of-the-art repair and protection solutions.

Arudra Engineers Pvt Ltd - in technical collaboration with Duromar Inc (USA), is a licensed Manufacturer, Distributor & Applicator of Duromar® range of products.

www.duromar.com

plastocor®

- Since 1956, plastocor® technologies have protected heat exchangers and condensers in thousands of power plants worldwide.
- Innumerable Thermal, Nuclear power plants and Refineries globally - spanning across North America, Europe, India and South East Asia — rely on plastocor® systems.
- plastocor-international SA delivers turnkey solutions for corrosion and erosion across the full spectrum of power generation — including wind towers.
- Core technologies include Cladding, Tube Inlet Coatings, Tube Lining, and High-Performance Coating Systems.

Arudra is a trained and Approved Applicator of plastocor® Technology: plastocor® coating systems & plastocor® coating materials supplied by plastocor International SA.

www.plastocor-international.com

Arudra Coatings is the Industrial Coatings arm of Arudra Engineers Pvt Ltd - an ISO 9001:2015 certified company that facilitates a wide range of engineering solutions (products & services) at a global scale, particularly across Power, Oil & Gas, Steel, and other heavy industries.

Since 2003, Arudra Coatings have been active in providing state-of-the art coating solutions for large industrial units aimed at solving a range of corrosion & erosion problems - thereby helping enhance asset life, solving maintenance issues and reducing operational costs of major equipment's.

Arudra Engineers Pvt Ltd - in technical collaboration with Duromar Inc (USA), is a licensed Manufacturer, Distributor & Applicator of Duromar® range of products.

www.arudra.co.in

Since 1968, Duromar Inc USA have been heavily involved in solving erosion, corrosion, and process control problems and over the years have emerged as pioneers in the field of manufacturing polymeric epoxies, offering a wide variety of zero VOC, 100% solid materials for use in a broad spectrum of industrial applications.

With the motive of bringing these world class epoxy-based solutions closer to the Indian, Middle Eastern and Asian markets, Arudra joined hands with Duromar Inc USA in 2018, to manufacture the Duromar® range of coatings & linings in India and serve as a licensed applicator and distributor across these regions.

Arudra work very closely with Duromar Inc across Production, Storage, R&D, Application and Distribution – thus covering the entire value chain to make the Duromar® product ranges closely available and accessible to industries across the globe.

www.duromar.com

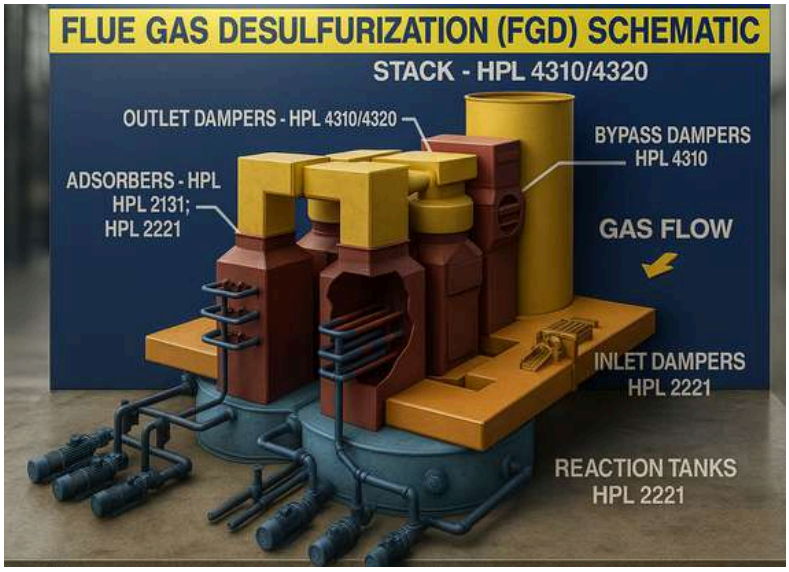
Flue Gas Desulfurisation (FGD) Systems

Complication:

The environment within a FGD system includes complex solids, liquids, and gasses interface characterized by critical temperature fluctuations and turbulent chemical reactions.

Duromar® coatings & linings have been used to protect innumerable Dry & wet FGD systems since the 1970's.

Duromar® epoxies are custom designed to withstand varying levels of chemical attacks, temperature fluctuations and impact abrasion, whilst also adhering to different grades of concrete and steel surfaces.



Solution:

The commonly used Duromar® systems in the FGD space include the **Duromar® HPL – 2131** (installed at 3mm thickness) for absorber towers and the **Duromar® HPL – 4320** (installed at 1.5mm thickness) for bypass and outlet ducts, each of them custom designed with glass flakes (optional) and novolac fillers to provide the required level of thickness and flexibility under continuous operation.

Arudra house expert application engineers, with sophisticated plural spray systems, dehumidifiers, abrasive blasting hoppers & hoses and required inspection expertise, to carry out the most challenging, saleable coating installations at highest quality standards.

Product details:

APPLICATION AREA	RESURFACE	REBUILD	LINING
Limestone storage Tanks	EAC	SAR	HPL-2131
Outlet Ductwork	EAC	EXP-THIXSET	EXP-THIXSET
Reaction Tanks	EAC-FE	SAR	SAR
Scrubber Vessels	EAC-FE	SAR	SAR
Stack Linings	EXP	EXP-THIXSET	EXP-THIXSET
Header Slurry Pipes	EAC	HAR	HAR
Spray Dryers	EAC-FE	SAR	SAR
Precipitators	EAC-FE	SAR	SAR

Chimney Stack Internals

Complication:

Most flue gases produced by the combustion of fuels contain contaminants that can condense into sulfuric, sulfurous, or hydrochloric acid droplets.

Flue Gas Dew Point Corrosion occurs when these aggressive acids condense on carbon and stainless steels in convection sections, flue ducts, and stacks

(Dew point corrosion is corrosion damage that occurs when the air reaches a temperature at which the evaporating and condensing rate of its moisture content are the same at a constant pressure. This is experienced when the air is humid, foggy, moist, sticky and misty)

The amount of contaminants in the fuel is directly correlated with the concentration of the acid droplets, and therefore with the degree of corrosion.

Left unattended for 2 years, the chimney can face severe Wall Thickness Loss – causing the structure to become unsafe.

Solution:

Duromar® HPL-4323 is a flexible epoxy novolac used for lining Chimney Stacks, secondary containment, ductwork or anywhere requiring better flexibility with extremely good chemical resistance.

Duromar® HPL-4323 can be easily applied using a singular spray technology and hence takes fraction of the time to coat large surface areas manually.

It has outstanding resistance to chemical, abrasive and temperature attacks even when applied at a minimal thickness level of 1mm.

It also has excellent bond strength across both concrete and steel surfaces. They are also flexible and can be built up to varying thickness levels.

The nature of an epoxy makes it extremely easy and quick to repair any damage that may have occurred to the protective lining.

Product details:

Duromar® HPL-4323 is a Multi-functional epoxy with a uniquely modified cycloaliphatic amine hardener. It has outstanding resistance to chemical, abrasive and temperature attacks even when applied at a minimal thickness level of 1mm.

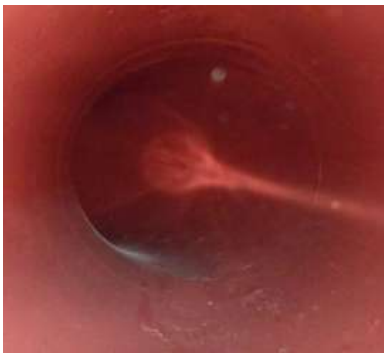
Key Features :

- Flexible
- Excellent Adhesion
- High Corrosion resistance
- Increased asset life.

Sea / Circulating water lines (Internal Pipeline)

Complication:

Sea and Circulating Water Lines, especially in power generation and desalination plants, face continuous exposure to highly aggressive environments. The internal surfaces of these pipelines—typically made of carbon steel—are vulnerable to severe corrosion, erosion, and biofouling due to the combination of high flow rates, fluctuating pressure conditions, and the presence of salts, microbes, and abrasive particles.
In the case of seawater circulation, metal loss, deep pitting, and surface degradation are common threats, often leading to leaks, costly downtimes, and premature asset failure. Traditional coatings struggle to provide long-term protection under these harsh operating conditions.



Solution:

Duromar® HPL-2510 offers a proven, high-performance coating system designed specifically for demanding marine and industrial water line applications. This 100% solids, solvent-free epoxy system provides superior adhesion and forms a seamless, glossy, and resilient barrier that not only protects but also enhances the appearance and longevity of internal pipelines.

It is ideal for immersion service in all types of water —fresh, brackish, saltwater, and seawater. When applied as per the manufacturer's guidelines, **Duromar® HPL-2510** delivers:

- Over 25 years of service life under continuous operation
- Exceptional resistance to corrosion, erosion, and chemical attack
- Reduced maintenance cycles and operational costs
- A premium finish that visually confirms proper application

Product details:

DUROMAR HPL-2510 is an outstanding, versatile and easy to use 100% solids material. It can be used for circulating water pipe, sewage treatment systems, or process water tanks. It can be applied by brush, roller or with conventional spray equipment.

Chemical Description
Multi-functional epoxy with a uniquely modified amido amine hardener.

Sea / Circulating water lines (External Pipeline)

Complication:

External corrosion protection is a critical factor in ensuring the safety, reliability, and durability of Sea and Circulating Water (CW) pipelines, especially when constructed from carbon steel. These pipelines are continuously exposed to harsh outdoor environments such as coastal salt-laden air, high humidity, heavy rainfall, industrial pollutants, emissions, extreme temperature fluctuations, mechanical wear, and UV radiation. In the absence of proper protective measures, these conditions accelerate the onset of oxidation, pitting, and galvanic corrosion. As a result, the pipe's wall thickness begins to degrade, compromising its structural integrity and increasing the likelihood of leaks, ruptures, or complete failure. Over time, this corrosion leads to frequent maintenance, unexpected shutdowns.

Solution:

To combat these challenges, Duromar® coating systems offer a superior line of external protection tailored to withstand the most demanding environmental conditions. Products such as **Duromar® SAR & Duromar® HPL-2510 are coupled with unique wrapping system** are specially formulated to resist:

- UV degradation
- Chemical splashes and fumes
- High moisture and humidity levels
- Thermal expansion and contraction
- Mechanical abrasion and impact

These 100% solids, high-performance epoxy coatings provide a seamless, durable, and chemical-resistant shield that prevents rust formation, flaking, and surface degradation. The result is long-lasting corrosion protection, enhanced visual appeal, and significantly reduced lifecycle costs.

Product details:

Duromar® HPL-2510 is an outstanding, versatile and easy to use 100% solids material. It can be used for circulating water pipe, sewage treatment systems, or process water tanks. It can be applied by brush, roller or with conventional spray equipment.

Duromar® SAR is a versatile easy-to-use rebuilding putty with excellent abrasion and chemical resistance. This product is heavily filled with aluminum oxide and can be built up to an inch in thickness or more. Typical applications are for rebuilding of pump casings, slurry tanks, weld seams or anywhere requiring the restoration of metal components.

ASME PCC-2 Pipe Rehabilitation System

Complication:

Pipelines and metallic infrastructure across industries often suffer from external erosion and corrosion, internal wall thinning, pitting, or mechanical damage due to operational stresses, harsh environmental conditions, or aging systems. In high-pressure and safety-critical installations, these defects can compromise system integrity and lead to leaks, failures, or unplanned shutdowns.

Traditional repair methods such as cutting, welding, or replacement are time-consuming, expensive, and often require system downtime or hot work, which pose additional safety risks and compliance challenges. Moreover, many systems operate in environments where access is limited, or the geometry is complex—making conventional repair methods unfeasible.

Solution:

The **Duromar® Finewrap Rehabilitation** System is a cutting-edge composite repair solution, engineered to restore the strength and performance of damaged or degraded metallic pipelines in full compliance with ASME PCC-2 and ISO standards.

This high-performance system is designed for both emergency and long-term repairs of:

- Pressurized pipelines
- Pressure vessels
- Elbows, tees, reducers, and other complex shapes
- Onshore and offshore equipment

Finewrap combines a 100% solids epoxy resin system with custom-formulated carbon or glass fiber wraps and a proprietary consolidation film, delivering exceptional adhesion and mechanical strength. It provides a non-invasive repair solution—with no need for abrasive blasting, hot work, or system shutdown—making it ideal for live repairs in active systems.

Product details:

The **Duromar® Finewrap** Composite Rehabilitation System is a high-performance solution designed to restore and reinforce damaged pipelines. Fully compliant with ASME PCC-2 and ISO standards, it combines a 100% solids epoxy resin, carbon/glass fiber wraps, and a consolidation film for strong bonding and durability.

Ideal for addressing corrosion, erosion, cracks, and structural defects, it suits complex shapes like tees, elbows, and flanges. Finewrap delivers up to 20 years of maintenance-free service.

The cold-applied system enables live repairs without shutdowns, reducing time and cost. Adaptable to various environments, it pairs well with **Duromar SAR and HPL-2510** coatings, offering a complete solution for pipeline rehabilitation and corrosion protection.

Tank Linings

Complication:

Storage tanks and process vessels are constantly exposed to aggressive chemicals, moisture, and temperature fluctuations—making them highly susceptible to internal corrosion, contamination, and structural degradation over time. Especially in industries storing acids, alkalis, oils, or lubricants, even minor corrosion can lead to metal loss, leaks, contamination of stored materials, and complete tank failure.

These issues are more pronounced when tanks are made from carbon steel and exposed to highly corrosive agents like sulfuric acid, hydrochloric acid, or high-moisture content oils. Without appropriate protection, operators face increased maintenance costs, safety risks, and shortened asset lifespan.

Solution:

Duromar® Tank Lining Systems offer a comprehensive range of protective coatings designed to safeguard both the internal and external surfaces of storage tanks and process vessels. These high-performance epoxy and novolac-based systems create a tough, chemically resistant barrier between the tank substrate and its contents, effectively preventing corrosion and extending service life.

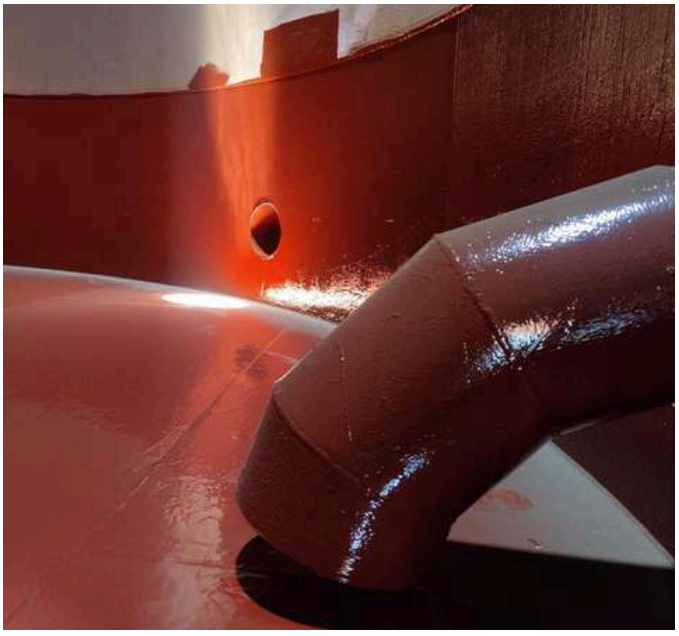
Depending on the stored media and environmental conditions, Duromar offers specialized products for acids, oils, lubricants, and even external weathering protection. All products are solvent-free, ensuring maximum film build, superior adhesion, and safe application—whether through spray or cartridge systems.

Product details:

Duromar® HPL – 4310, is a high functionality, 100% solids novolac material, which can be applied by conventional airless spray equipment. It can be used in power plant outlet ducts, utility systems, petrochemical and acid storage tanks, or anywhere requiring outstanding chemical resistance in an easy to apply coating system.

Duromar® HPL-4320-XC is a more chemical resistant version of the HPL-4320 designed for constant immersion in high concentrations of sulfuric and other inorganic acids. Although it can be applied by hand in small areas, it is most efficiently applied using plural component spray equipment. Requires elevated temperature cure.

Duromar® HPL-2310 is a low viscosity, long potlife coating with excellent chemical resistance in an ambient cured material. It is designed to be applied by brush, roller or with conventional airless equipment.



Pumps & Impellers

Complication:

Pumps and impellers are at the heart of fluid handling systems and are constantly subjected to high-pressure flow, suspended solids, and aggressive chemicals. These critical components often face severe corrosion, erosion, and abrasion, especially in industries such as power generation, water treatment, mining, and chemical processing.

The combined effects of fluid turbulence, cavitation, and harsh operating environments result in metal loss, pitting, reduced flow efficiency, and ultimately, frequent breakdowns. As wear progresses, these damages not only impact performance and reliability but also lead to increased energy consumption and higher maintenance costs, reducing the overall efficiency of the operation.

Solution:

Protecting your pumps & impellers with Duromar® 100% Solid (Zero VoC) epoxy coatings, helps do away with the constant threat of corrosion & abrasion.

In addition to enhancing the asset life of these pumps. the top coat of **Duromar® EAC - LV** provides a glossy finish to ensure smooth and enhanced circulation of fluids.

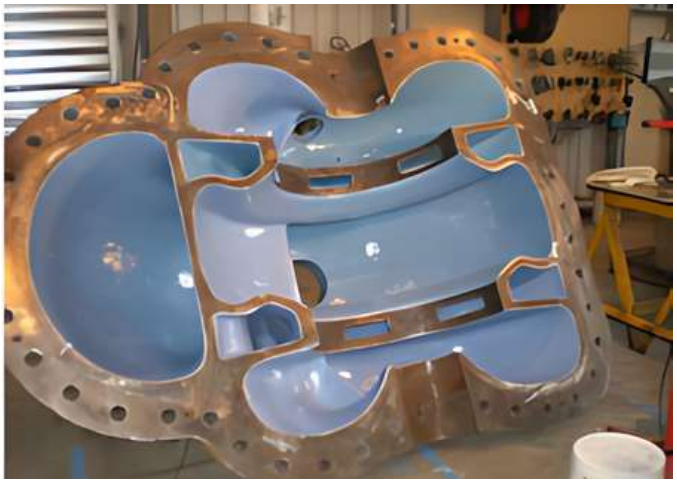
The double layer of protection – ceramic putty & liner - makes it impossible for corrosion promoters such as oxygen and humidity to get beneath the coating, thus helping enhance the Asset Life of the pump for years to come

- Outstanding, long-lasting corrosion & erosion protection.
- Increased energy & cost savings.
- Enhanced smooth flow rate.
- Outstanding surface tolerance & adhesion levels.
- Excellent resistance to slurry & acids.
- Excellent temperature & thermal shock resistance.

Product details:

Duromar® EAC-LV is a brushable version of EAC used to provide a smooth final surface while enhancing fluid for resisting cavitation. **EAC –LV** should be used anywhere a smooth , abrasion and impact resistance coating system is required.

Duromar® EAC-LV has the consistency of a thick paint and can be applied up to 30 mils per coat. Theoretical coverage at 20 mils is 12.8 sq. ft. per kg.



Coal Mills

Complication:

Coal mills are vital components in coal-fired power plants, responsible for pulverizing raw coal into fine powder to ensure efficient combustion in the furnace. However, the internal surfaces of coal mills—including liner plates, classifier cones, and outlet ducts—are continuously exposed to severe erosion, abrasion, and impact caused by high-velocity coal particles.

Over time, this leads to thinning of metal surfaces, frequent failures, and even unexpected shutdowns, affecting the plant's critical operational parameters and overall reliability.

Solution:

To overcome these challenges, advanced surface protection solutions using ceramic and carbide-based systems are recommended. A proven approach involves the combined use of **Duromar® Duro-Tile** (Aluminium Oxide Tile) and Duromar® HAR (Carbide Putty), offering superior wear resistance and cost-effectiveness.

Duromar® Duro-Tile consists of hexagonal tiles made from >90% aluminum oxide, designed for exceptional hardness and abrasion resistance. These tiles are installed using Duromar® HAR, a high-performance, carbide-filled trowelable refractory bonding epoxy, providing a strong, durable protective layer on the most vulnerable surfaces inside coal mills.

Product details:

Duromar® Duro-Tile (Aluminium Oxide Tile) is made from high-purity (>90%) aluminum oxide, these tiles are supplied in convenient hexagonal sheets, ensuring excellent fit and easy application. They are specifically engineered to withstand severe erosion, extending the life of mill internals significantly.

Duromar® HAR (Carbide Putty) is a heavy-duty, abrasion-resistant putty designed to resist fine particulate slurries and high-velocity impacts. Duromar® HAR is used to bond ceramic tiles and can also be applied directly to surfaces to build up and protect areas prone to wear. Typical applications include coal mills, chutes, elbows, ash hoppers, and deflector plates in FGD systems.

Abrasion Resistant Putties & Liners

Complication:

Industrial equipment and critical surfaces across sectors such as mining, power generation, steel, cement, and chemical processing are constantly exposed to severe erosion and abrasive forces.
Continuous exposure to high-velocity slurries, abrasive particle impact, and harsh material flows gradually wears down metal and concrete surfaces. This leads to frequent failures, unexpected shutdowns, and expensive replacement of components. In many cases, traditional metal or concrete repairs are short-lived and do not provide the long-term protection required for continuous, heavy-duty operations.
Such recurring damage not only increases maintenance and operational costs but also compromises plant efficiency and safety.

Solution:

Duromar® Abrasion Resistant Putties and Liners are specifically engineered to address these challenges by providing superior protection against wear, erosion, and mechanical impact.

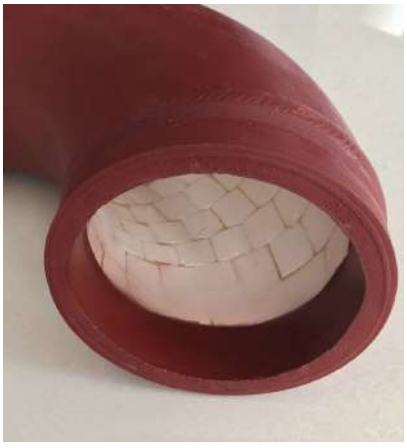
Formulated with high-performance epoxy systems, these products create a robust, durable barrier that resists extreme abrasion, extending the life of industrial equipment and reducing the need for frequent repairs.

Ideal for repairing, rebuilding, and protecting high-wear surfaces, Duromar® solutions minimize downtime, improve operational reliability, and deliver significant savings on maintenance and replacement costs.

Product Details:

Product	Description
Duromar® HAR	A carbide-filled, trowelable putty designed for ultimate abrasion resistance in areas exposed to fine slurries and aggressive particulate flow. Commonly used in coal mills, chutes, elbows, and deflector plates.
Duromar® UltraBuild	A high-build repair compound ideal for rebuilding heavily damaged surfaces before applying protective coatings or linings.
Duromar® SAR	A versatile, ceramic-filled putty for restoring and protecting surfaces exposed to moderate abrasion and chemical attack.
Duromar® DuroTile	Ceramic-based tile system offering maximum wear resistance, perfect for areas subjected to severe sliding abrasion.
Duromar® DuroFil	A structural repair and rebuild compound used to fill voids and restore substrate integrity prior to top-coating.
Duromar® CrackFil	Specially designed for repairing cracks and filling joints, ensuring a smooth and continuous protective surface.
Duromar® EAC	Brushable epoxy with excellent chemical and abrasion resistance, ideal for final top-coats in high-wear areas.

Product	Description
Duromar® HPL-2131	A novolac-based lining system providing outstanding resistance to both abrasion and chemical exposure.
Duromar® HPL-4330	A heavy-duty novolac trowelable lining designed for extreme chemical and abrasive environments, efficiently applied by grout pump or trowel.



Bunker & Silo Protection

Complication:

Bunkers and silos play a crucial role in the storage and handling of bulk solids such as coal, sulfur, cement, phosphates, and various minerals. However, these structures are constantly exposed to challenging service environments, with fluctuating moisture levels significantly impacting their performance.

When the moisture content of stored materials increases, particles tend to stick to the internal surfaces of silos, hoppers, chutes, and feeders — whether constructed from concrete or steel. This adhesion leads to frequent blockages, reduced flow efficiency, and increased downtime for cleaning and maintenance. Additionally, trapped moisture can lead to corrosion, erosion, and the formation of aggressive acids (such as sulfuric acid), further accelerating equipment deterioration and increasing operational costs.

Solution:

To combat these complications, advanced protective lining systems are required to ensure smooth material flow and provide robust resistance to corrosion and abrasion.

Duromar® EAC and Duromar® EAC-LV have been specially developed to address these critical issues. Applied at a thickness of approximately 1 mm, these high-performance coatings create a smooth, non-stick surface that eliminates the tendency of materials to adhere to silo and bunker walls. In addition, these linings offer exceptional chemical resistance, effectively protecting against corrosive attacks, particularly from sulfuric acid formed by moisture-laden bulk materials

.

This dual-action approach not only helps prevent sticking and buildup but also significantly extends the service life of bunkers and silos, reducing maintenance frequency and associated costs.

Product details:

Duromar® EAC is a versatile, brushable maintenance coating designed to protect against both chemical and mechanical attacks. Duromar® EAC provides excellent resistance to acids and alkalis, making it highly effective in harsh industrial environments. Its superior abrasion resistance makes it ideal for protecting areas exposed to continuous material flow and impact.

Duromar® EAC-LV is a lower viscosity, brushable version of Duromar® EAC, specifically engineered to provide a smoother final surface finish. EAC-LV enhances flow efficiency and offers superior protection against cavitation, abrasion, and impact. This product is particularly valuable when a slick, easy-to-clean surface is required to maintain uninterrupted material flow.

Civil / Flooring Applications

Complication:

Heavy Duty industrial floors are exposed to cracking & vibration due to the constant movement of heavy equipment over the course of operation.

This causes the concrete floors to weaken with time and there exists an inept need to protect the civil areas with a robust, long lasting solution.

Neutralisation Pits and Concrete floors are often exposed to excessive corrosion/erosion due to the aggressive operating environment of Industrial units. With time, the corrosion & erosion issues become so excessive that they would have to be entirely replaced with a more wear resistant solutions




Product details:

Duromar® DuroFil / Chemcrete is a High-performance grouting and resurfacing materials designed to repair and rebuild damaged concrete surfaces. These materials provide excellent mechanical strength and serve as an ideal foundation layer for further protective coatings.

Duromar® DF-1310 is a heavy-duty, chemically resistant top coat that enhances wear resistance and protects against corrosion and chemical attack. When applied over DuroFil or Chemcrete, it delivers a smooth, durable finish capable of withstanding high mechanical loads and aggressive chemical environments.

Duromar® DF-4301 is a 100% solids, novolac epoxy floor coating known for outstanding resistance to acids, bases, and solvents. It is especially suited for secondary containment areas and floors exposed to frequent chemical splashes and spills.

Duromar's range also includes specialized grouting and flooring systems such as HydroFlor and Chemcrete Super, designed to cater to diverse industrial maintenance needs.

Solution:

To address these challenges, robust and long-lasting flooring and civil protection systems are essential. Duromar® has developed advanced epoxy-based solutions designed to significantly enhance the durability and chemical resistance of industrial floors and civil structures.

A combination of **Duromar® DuroFil or Chemcrete, top-coated with Duromar® DF-1310** at a thickness of 3mm to 5mm, provides exceptional reinforcement to concrete floors. This system effectively extends the service life of heavy-duty floors by 20–30 years, even under continuous, harsh operational conditions.


Structural Liners

Complication:

Metallic structures form the backbone of various heavy industries, including power generation, chemical processing, mining, and marine applications. However, these structures are constantly subjected to harsh operating conditions such as acidic fumes, high humidity, and aggressive chemical exposure.

Prolonged exposure to these environments leads to rapid corrosion and surface degradation, compromising the strength and stability of critical structures. As a result, frequent repair or even complete replacement becomes necessary — often involving high costs, extended downtimes, and safety risks for maintenance crews.

Solution:

To effectively combat these issues and enhance the durability of metallic structures, advanced protective lining systems are essential. Duromar® offers specialized structural liner solutions designed to provide long-lasting protection against corrosion and environmental attacks.

Applying **Duromar® HPL-4330** for acidic environments and **Duromar® HPL-1110** for non-acidic environments at a thickness of just 0.5–0.7 mm offers superior corrosion resistance and structural integrity that can last for decades.

These high-performance linings boast outstanding adhesion and tensile strength, creating a seamless, impermeable barrier that shields metallic substrates from moisture, chemicals, and mechanical wear.

Product details:

Duromar® HPL-4330 is a trowelable, 100% solids novolac lining system designed for the most aggressive chemical and abrasive environments. With excellent chemical resistance and durability, it is ideal for protecting structures exposed to strong acids and harsh industrial conditions. HPL-4330 can be efficiently applied using a grout pump, trowel, or squeegee, ensuring precise coverage and minimal application time.

Duromar® HPL-1110 is a flexible, low-viscosity, easy-to-apply coating system tailored for non-acidic environments. It provides exceptional corrosion protection on structural steel, tank exteriors, and other exposed metallic surfaces. Its ease of application and DOT non-corrosive classification make it a highly versatile and safe solution for on-site use.

Transformer Leak Arrest Systems

Complication:

Transformer systems are critical assets in power distribution and industrial facilities. However, they are prone to oil leaks, particularly at ceramic insulators and metallic joint areas such as gaskets.

These leaks commonly occur due to inadequate welding or imperfect sealing around the joints and insulators in immersed transformers. Over time, even minor imperfections can lead to significant oil seepage, posing severe operational and environmental risks.

Persistent leaks demand frequent and labor-intensive repairs, increasing downtime, manpower requirements, and overall maintenance costs. Additionally, uncontrolled oil leaks compromise transformer efficiency and may lead to costly unplanned outages.

Solution:

To address these challenges effectively, a rapid and reliable sealing system is essential. The Duromar® Transformer Leak Arrest kit offers a high-performance, easy-to-apply solution designed specifically for stopping leaks in transformer systems.

This specialized kit includes **Duromar® DuroStik** — an extremely fast-curing putty — and **Duromar® SAR-UW**, a versatile ceramic putty that can cure even under wet or submerged conditions. Together, these materials create a strong, long-lasting barrier that seals leaks quickly and effectively, minimizing downtime and preventing further oil loss.

Product details:

Duromar® DuroStik is a single-tube, fast-curing putty material ideal for quick and emergency repairs. It is designed for use on steel, aluminum, fiberglass, and concrete surfaces. Thanks to its compact packaging and rapid cure properties, DuroStik is perfect for toolbox storage, allowing technicians to address leaks immediately on-site without complex equipment.

Duromar® SAR-UW is a ceramic-filled putty that cures underwater, making it exceptionally versatile for situations where the component must return to service before complete cure or where wet conditions are unavoidable. SAR-UW is suitable for both freshwater and saltwater applications, and it is highly effective for rebuilding and sealing areas exposed to continuous oil and moisture.

Arudra is a trained and approved applicator of plastocor® technologies systems and plastocor® Coating materials manufactured by plastocor® International SA.

Arudra's applicators are well trained by plastocor® International SA to ensure to meet world class application standards.

Arudra operate with state-of-the art technologies for application of epoxy products – Blasting equipment, plastocor® Tube Lining machine & Oil Free Air compressors/dehumidifiers to name a few.

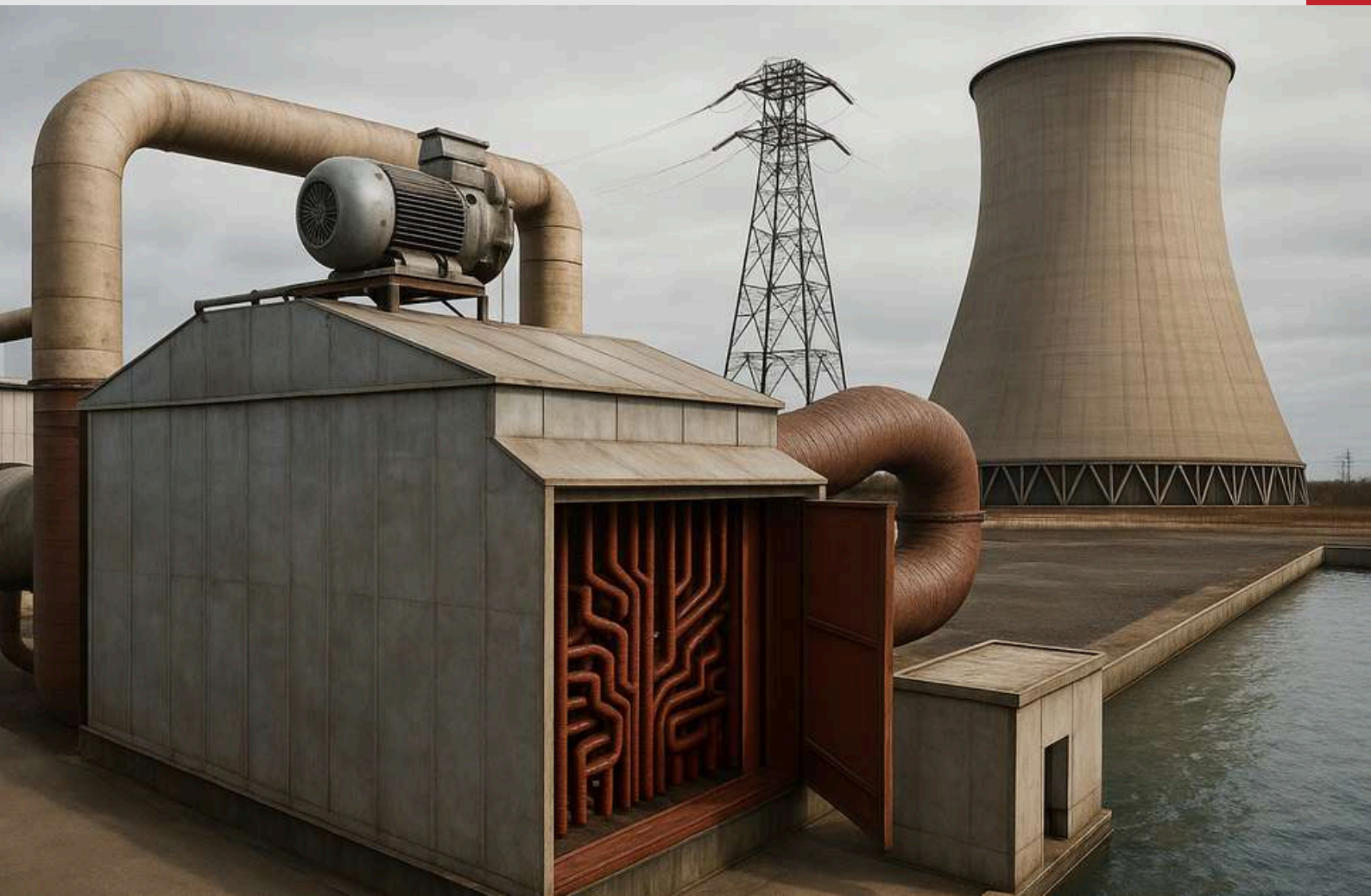
www.arudra.co.in

Since 1956, the Plastocor technology has been leveraged to protect condensers and heat exchangers across Thermal, Neuclear power plants and Refineries globally - spanning across North America, Europe, India and South East Asia.

plastocor-international SA supplies a "one-stop turnkey solution" for corrosion and erosion problems across the entire power generation industry, including wind towers

plastocor® technology include Cladding, Inlet, Tube-Lining and High - Performance coating Systems.

www.plastocor-international.com



Plastocor® Cladding System.

Due to dissimilar materials of construction of tube sheet and the tubes used in Heat-Exchangers, the tube sheet is susceptible to galvanic corrosion as well as erosion.

Applying the thick layer **plastocor® Cladding system** to the tube sheet ensures no contact of water between dissimilar metals, thereby ruling out galvanic corrosion and protecting the tube sheet from erosion. It is also suitable to rebuild lost tube sheet material to a near to new condition, thereby extending the lifespan of your Heat-Exchanger up to 25 years and more.

Heat-Exchanger Tube Sheet protected using plastocor® Cladding system.

Heat-Exchanger Water Box coated using plastocor® High-Performance Coating System

Plastocor® High Performance Coating Systems

The water box plays a critical role in the overall operation and efficiency of heat exchangers and condensers. However, it is constantly exposed to harsh operating conditions and aggressive cooling water environments, making it highly vulnerable to galvanic corrosion. This type of corrosion occurs when dissimilar metals come into contact in the presence of an electrolyte, leading to accelerated material degradation. If not properly addressed, galvanic corrosion can severely compromise the structural integrity of the water box, cause unexpected shutdowns, and lead to costly repairs and replacements.

Similar to the plastocor® Tube Sheet Cladding System, **plastocor® High-Performance Coating Systems (HPC)** offer an effective, long-term solution for protecting water boxes operating in different types of cooling water environments such as river water, lake water, sea water, or brackish water.

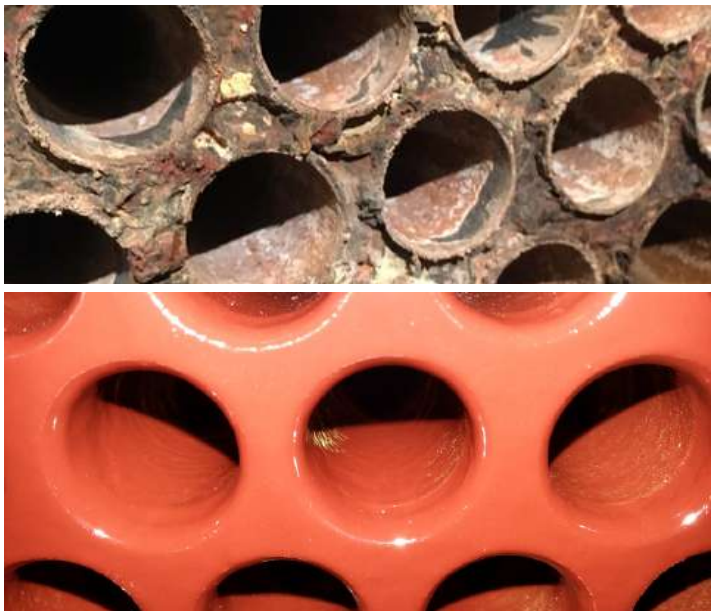
These advanced coating systems are specially engineered to withstand the most demanding conditions by providing a highly durable, impermeable barrier that isolates the substrate from corrosive elements. When correctly applied, plastocor® HPC systems completely eliminate galvanic corrosion problems, significantly reduce abrasion and erosion losses caused by high-velocity water flow, and prevent the in-leaking of ground or contaminated water. Furthermore, biological and marine growth—such as algae, barnacles, and other fouling organisms—is minimized.

Plastocor® Tube-Inlet System

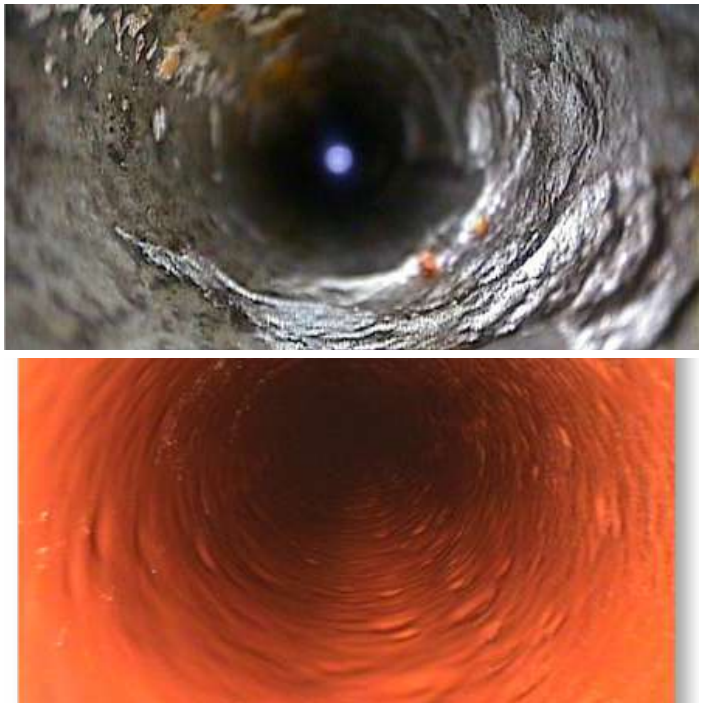
Because of turbulent flow in the first few inches of any inlet of Heat Exchanger tubes, there is every possibility of accelerated erosion and consequential corrosion taking place at the inlets.

To overcome this problem, the original **plastocor® Tube Inlet Coating System** provides a sophisticated 3-step method which indefinitely protects and repairs condensers and heat exchanger tubes against inlet and outlet corrosion and erosion and allows for expert planning and budget optimisation, saving a plant operator time and money.

In combination with **plastocor® tube sheet cladding**, it offers the optimal life extension system of >20 years, plus the elimination of step- and general erosion



Heat-Exchanger tube inlets coated using plastocor Inlet System



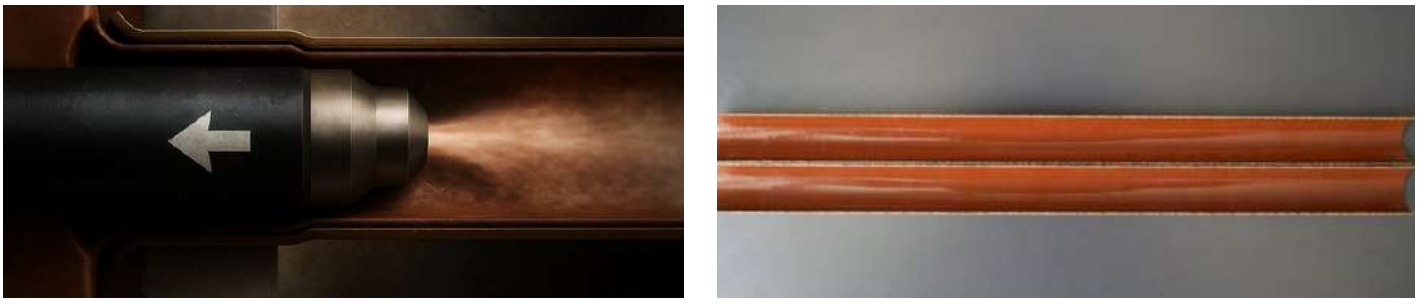
Heat Exchanger tubes upon application of plastocor® Tube Lining System

Plastocor® Tube-Lining System

After a long period of operation, there are every possibility of Heat–Exchanger tubes getting weakened by erosion/corrosion throughout the entire length of the tubes. This may result in pits or excessive thinning of the tubes as well as increased fouling.

The original patented **plastocor® Tube Lining System** for the full length of the tube is a unique on-site application system carried out during regular outages to extend the lifespan of small Caliber tubes (3-4mm) of condensers and heat exchangers damaged by erosion and corrosion.

The patented technology, machinery and services allow for full-length tube coatings of approx. 15m length. The coating is additionally so smooth that the propensity for biofilm formation and silt deposition is greatly reduced. As a result, plastocor® Tube Lining further eliminates almost all metal ion discharges, such as e.g. copper, zinc, arsenic, resulting in not only expert tube protection, but also protection of the environment.



plastocor® Tube Lining process

REGISTERED OFFICE	COLLABORATORS	DISTRIBUTORS	JOBS EXECUTED			
India	USA	India	India	Vietnam	Senegal	Lebanon
Philippines	Switzerland	Thailand	Srilanka	Singapore	Nigeria	Bahrain
	UAE	Philippines	Philippines	Laos	Egypt	Jordan
	Philippines	Malaysia	Bangladesh	Indonesia	OMAN	
	Malaysia	Vietnam	Nepal	Australia	UAE	
	Singapore	Singapore	Thailand	Uzbekistan	Kuwait	
		UAE	Malaysia	Iraq	Qatar	

Arudra Major Client List

Arudra

Coatings







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Engineers Private Limited

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No: 79, Valmiki Street, Thiruvanmiyur,
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