



Offering Customised Solutions

For Phenolics, Alkyds, Aminos, Resin in Powdered and liquid forms for Paint, Ink, Adhesive & Rubber Industries



The Forace Advantage

Designing products to suit individual customer needs

Consistent quality

Prompt delivery

Wide network of field representatives – prompt response, easy accessibility



We Serve

Foundry Industry	: Ferrous, Non Ferrous
Adhesive Industry	: Phenolics/PTBP, Solvents
Rubber/ Tire Industry	: Resins, Releases, Coupling Agents, Additives, Waxes
Paint & Ink Industry	: Resins, Solvents
Refractory Industry	: Powdered and Liquid Phenolic Resins
Abrasive Industry	: Bonded, Coated
Friction Industry	: Resins, Releases
Felt Industry	: Resins, Releases
Speciality Resin	: Resin for Rockwool, Glass fibre Composites, Resin for Floral Foam, Filter Paper, Scrub Pads

Vision

Continuous striving for leadership in the field of speciality resins and foundry chemicals.

Striving

A state of mind throughout the organisation, never being satisfied with the status quo and constantly striving to be better and to do new things.

Leadership

Leadership in the eyes of our customers through our thoughts, behaviour, actions and achievements. Build stronger relationships with our existing customers and reach out to new customers through innovation.

Mission

To provide value to our customers and business partners with quality products, innovative solutions and responsive services.

Values

We believe, our customers define the success of our organisation. The customers are always at the top of our mind in everything we do.

Our people are the heart of the organisation, and we give them the freedom to achieve through clarity of direction and free flow of information.

We have a responsibility to make a positive contribution to the society by our business interfaces.

Profile

Forace was founded in the year 1980 to fill the gap of a reliable source of resins in North India. Since then, the organization has made exponential growth and has achieved a prominent place in the industry, exporting Resin to about 28 countries worldwide.

With excellent quality, remarkable performance, and satisfactory customer service, leaders in foundry consumables in both Ferrous and Non-Ferrous, Forace has grown as the largest Phenolic, Furan Resins producer in the Indian subcontinent.

Forace manufactures Specialty Resin Coated Sand for making intricate Ferrous/Non-Ferrous castings, Exothermic/Insulating and HD Sleeves, Refractory Coatings, Specialty Releases, Core Glues, Foundry Consumables.

A comprehensive range of consumables for the Non-Ferrous Industry, including High Pressure Die-Casting, Low Pressure Die-Casting, Gravity Die-Casting, Smelters, and Extrusion.

Forace is backward integrated in Hardners and catalyst and making their own Para toluene Sulfonic Acid (PTSA) & Ethylene Glycol Diacetate (EGDA)

Forace also supplies high-quality Specialty Phenolic Resin for different application like Refractory, Abrasives, Friction, Filter paper, Resin Felt, Resin for Floral foam, Scrub pads, Glass Fibre Reinforcement Composite panels.

Forace also manufactures Solvents & Resins for Paint Industry.



Forace also manufactures resins, coupling agents, enhancement additives, waxes, and melamine resins for the Tire and rubber industry.

Forace-TAG, in partnership, offers release agents for various segments, including the tire, friction composite, PU, Die-Casting, Rubber, Forging industries.

Forace is a partner with 10 leading global companies and provides its products and solutions to its customers.

Forace operates three specialized manufacturing units, strategically located to cater to a variety of industry needs.

Forace Speciality Chem Pvt Ltd

Unit I : Manufactures refractory coatings and auxiliary chemicals for ferrous foundries. All consumables for non-ferrous industry are also made in this Unit.

Unit II : Manufactures Specialty Resin Coated Sand for making intricate Ferrous/Non-Ferrous castings and Foundry Sleeves.

Unit III :Manufactures high-quality Speciality Phenolic, Furan, Alkyds, Aminos, Alkyl Phenolic Resin, Tackifier resin, Alkyl Phenolic, Tackifier, Rosin Ester Gum, Penta Ester Gum, Terpene Phenolic, Resorcinol Resins for various industry segments.

Solvents for Paint and printing ink industry and other speciality chemicals are also made in this unit.

All three Units are in Haridwar, Uttarakhand.

Unit IV is an upcoming Resin manufacturing plant in Gujarat, set to commence operations in 2026 - 2027.

Forace has strategically located godowns in Ahmedabad, Jamshedpur, Coimbatore and Kolhapur to ensure timely supplies to customers.



Facilities

Equipped with state-of-the-art DCS controlled fully automatic manufacturing facilities, company has an installed capacity of 1,20,000 MT of Resins at Haridwar, Uttarakhand. An upcoming Resin manufacturing plant in Gujarat is set to commence operations in 2025, with capacity of 1,20,000 MT.

Forace is producing full range of coatings and sleeves for Foundries with most modern equipment, having installed capacity of 30,000 MT per annum at Haridwar, Uttarakhand. An upcoming manufacturing plant for full range of coatings and sleeves for Foundries is set to commence operations in 2025 at Gujarat with capacity of 30,000 MT per annum.

Resin Coated Sand plant put up with latest technology has installed capacity of 36,000 MT per annum at Haridwar, Uttarakhand. An upcoming manufacturing plant for Resin Coated Sand is set to commence operations in 2025 at Gujarat with capacity of 36,000 MT per annum.

Forace also serves Non-Ferrous consumables with a 12,000 MT per annum plant producing Non-Ferrous consumables at Haridwar, Uttarakhand. An upcoming manufacturing plant for Non-Ferrous consumables is set to commence operations in 2025 at Gujarat with capacity of 12,000 MT per annum.

Forace has Coating & Consumables plant at South Africa having capacity 6,000 MT per annum.

Forace has got latest technologies SAP HANA, Distributed Control System (DCS), Warehouse Management System (WMS) for automation and traceability.

The technically competent workforce that operates the Forace plant round-the-clock to facilitate smooth execution of all assignments is the biggest strength of the company.

In addition, the business associates of Forace have privilege access to pool of technical experts, who are ever ready to assist in finding solutions promptly and efficiently.



Quality



Forace is an ISO 45001:2018, 14001:2015 and 9001:2015 certified company, committed to supply quality products, strictly as per customer requirements. We are European REACH certified company

Forace has fully-equipped laboratories with advance equipment's like Gas Chromatography (GC), Gel Permeation Chromatography (GPC), TGA, Flame Photometer, Velp Jaldel, HPLC, FTIR, DSC.

Warehouse management system (WMS) and QR codes are used from raw material to finished goods for ensuring complete traceability.

Automated controlled production process ensures consistent quality of products.





Technological Development and Services

Our steady growth story is a result of in-house research & development. A dedicated Research team is continuously engaged in developing new products and upgrading the formulations, keeping abreast with changes taking place in technologies. We have been recognised as IN-HOUSE - R&D Unit by the Government of India. Our labs are well equipped with all the latest analytical instruments like GC and HPLC. Banbury Mixer, Two Roll Mill, Curing Press, Goodrich Flexometer, Premier RPA, Premier Mooney Viscometer, Picma Tack Tester, Universal Testing Machine, Box Oven & Multi cells Ageing Oven, FLEX FATIGUE LAB: Demattia Flexometer, DIN Abrasion Tester



We have got a dedicated R&D centre with experienced R&D team working on various resins, coatings, Paint resins, Tire consumables.

We have got a Tire innovation centre

Our main forte is to offer customized solutions for challenging applications based on our customer's requirements. Appreciating that every industry has unique requirements varying on account of material inputs, process, location and atmospheric parameters, we develop products to meet the specifics of the customer.

Our field representatives keep track of the performance of each supply and forward the feedback to our technical experts for making necessary modifications if required. Our valued customers are thus assured of suitable products and are freed of the trouble of making adjustments at workplace.



Butylated Urea Formaldehyde Resin

Formine-UF

Sr. No.	Product	Type	Solvent	% Solid (min) (±2)	Viscosity in Poises at 25°C	Acid Value mg KOH/Gm Max	% Free Formaldehyde	Mineral Spirit Tolerance	Xylene Tolerance	Recommended Usages
1	FS-1110-UF	Butylated UF Resin	n-butanol	65	12-27	1.5 Max	3 Max	1 : 2 Max	1 : Infinite	Very fast curing at low temperatures, ideal for screen and wooden lacquers.
2	FS-1110-ISO	Butylated UF Resin	iso Butanol	60	8-12	1.5 Max	3 Max	1 : 2.5 Max	1 : Infinite	Perfect for baking enamels, coil coatings and epoxy primers.
3	FS-1110-LF	Butylated UF Resin	iso Butanol	56	10-17	1.5 Max	1.5 Max	1 : 3 Max	1 : Infinite	Recommended for acid-cure wood coating applications.

Butylated Melamine Formaldehyde Resin

Formine-MF

Sr. No.	Product	Type	Solvent	% Solid (min) (±2)	Viscosity in Poises at 25°C	Acid Value mg KOH/Gm Max	% Free Formaldehyde	Mineral Spirit Tolerance	Xylene Tolerance	Recommended Usages
1	FS-2200	Butylated MF	n-butanol	60	5-10	1.5	3 max	1 : 4-6	1 : Infinite	Highly reactive, low-temperature cross-linking resin.
2	FS-2210	Butylated MF	n-butanol	65	5-10	1.5	3 max	1 : 3-5	1 : Infinite	Efficient and fast curing for baking enamels with excellent color retention, resistant to overbaking.
3	FS-2220-HS	Butylated MF	n-butanol	68±3	10-17	1.5	3 max	1 : 6-8	1 : Infinite	Wide compatibility for flexible lacquers used on metalized plastic articles. Fully compatible with medium and long oil alkyd resins.

Short Oil Alkyds

Forkyd

Sr. No.	Product	Oil Type & Length	% Solid (±2) Max	Solvent	Acid Value mg KOH / Gm Max	Viscosity 50% Solid on GS 30°C in Poise	Colour on Gardner Scale 50% Solution of Resin Max	Recommended Usages
1	FS-3330	Saturated Fatty Acid type /DCO	70	Xylene	10 max	6-10	4	Ideal for white baking enamels and plasticizers for NC lacquers.
2	FS-3335	Coconut Oil Non Oxidising Short Oil	70	Xylene	20 max	6-8	3	Extremely fast drying and durable, providing excellent hardness.
3	FS-3336	Saturated Non Oxidising Short oil	70	Xylene	15 max	6-10	1	White baking enamels and primers. Used for wood coating NC, melamine and 2k PU coating.
4	FS-3340	DCO Oil type Semi Oxidising Short Oil	70	Xylene	30 max	10-12	8	Effective for cold-catalyzed lacquers with UF resin.
5	FS-3345	Soyabean Fatty Acid Oxidising Short Oil	70	Xylene	5	4-6	5	Provides high gloss and through-drying, making it suitable for general-purpose fast-drying baking enamels for industrial equipment, machinery, household appliances and more.

Rosinated Alkyds

Forkyd

Sr. No.	Product	Oil Type & Length	% Solid (±2) Max	Solvent	Acid Value mg KOH / Gm Max	Viscosity in Seconds	Colour on Gardner Scale	Recommended Usages
1	FS-3350	Fatty Acid modified with rosin	50	MTO	25	200-240 in 40% MTO / White Spirit	12	An economical option for air-drying paints and primers.
2	FS-3351	Fatty Acid modified with rosin	70	MTO	18	300-340 in 40% MTO / White Spirit	12	Air Drying / Baking Industrial Finishers & Primers.
3	FS-3355	R-DCO	50	MTO	30	200-240 in 40% MTO / White Spirit	12	Designed for low-cost industrial baking finishes and primers.

Medium Oil Alkyds



Forkyd

Sr. No.	Product	Oil Type & Length	% Solid (±2) Max	Solvent	Acid Value mg KOH/Gm Max	Viscosity 50% Solid in FC B-4 at 30°C in Seconds	Colour on Gardner Scale 50% Solution of Resin Max	Recommended Usages
1	FS-3360	Soyabean Oil modified Oxidising Medium oil	60	MTO	15	80 - 100 Seconds in 40% MTO	10	Suitable for air-drying alkyds used in general-purpose industrial paints, primers, and enamels
2	FS-3365	Linseed Oil modified Oxidising Medium oil	60	MTO	10	22-34 ps	10	Ideal for synthetic primers, undercoats, and furniture enamels.

Long Oil Alkyds

Forkyd

Sr. No.	Product	Oil Type & Length	% Solid (±2) Max	Solvent	Acid Value mg KOH/Gm Max	Viscosity 50% Solid in FC B-4 at 30°C in Seconds	Colour on Gardner Scale 50% Solution of Resin Max	Recommended Usages
1	FS-3370	Soya fatty acid type oxidising Long Oil	70	MTO	15	180 - 220	6	Non-yellowing high-quality finishes for white enamel, roller coatings, and varnishes.
2	FS-3375	Linseed Oil modified oxidising Long Oil	60	MTO	10	95 - 110	7	Air-drying synthetic enamel paints. Excellent for outdoor performance, including yacht varnishes, wood coatings, stains, and printing inks.

Chainstopped Alkyds

Forkyd

Sr. No.	Product	Oil Type & Length	% Solid (±2) Max	Solvent	Acid Value mg KOH/Gm Max	Viscosity in PS@25°C	Colour on Gardner Scale 50% Solution of Resin Max	Recommended Usages
1	FS-3380	Soya fatty acid type oxidising Short Oil	70	Xylene	15	34-63	7	Extremely fast drying and durable, recommended for industrial paints, primers, and quick-drying enamels.
2	FS-3385	Soya fatty acid type oxidising Short Oil	60	Xylene	10	27-46	6	Ideal for air-drying, baking systems, and 2K polyurethane applications.
3	FS-3390	Soya fatty acid type oxidising Short Oil	70	MTO / Xylene	12	27-46	6	Very fast drying alkyd for automotive finishes, QD enamels, compatible with MTO/White spirit.
4	FS-3391	Soya fatty acid type oxidising Short Oil	70	MTO / Xylene	12	27-46	6	Suitable for automotive finishes and quick-drying systems.
5	FS-3395	Soya fatty acid type oxidising Short Oil	55	MTO	15	8-10	6	Air drying alkyd for auto refinishes, Industrial baking enamels, 2K PU based coating.

Products for Adhesive Industry

Alkyl Phenolic Resin (PTBP Resin)

Para-tertiary butylphenol (PTBP) resin is a thermosetting resin synthesized through the condensation of para-tertiary butylphenol with formaldehyde. This resin is known for its excellent adhesive, chemical, and heat-resistant properties, making it ideal for various industrial adhesives.

Products

- FPP 207
- FPP 403
- FPP 1207
- FPP 507 (HHR)
- FPP 207 HM
- FPP 307

Terpene Phenolic Resins

Terpene phenolics are thermoplastic polymers produced through the copolymerization of terpene hydrocarbons and phenol.

Products

- FPP 70 TP
- FPP 90 TP
- FPP 100 TP
- FPP 110 TP
- FPP 115 TP
- FPP 120 TP
- FPP 130 TP

Rosin Modified Resins

Rosin modified resins, such as ester gum and penta ester gum, are derivatives of natural rosin chemically modified to enhance performance.

Products

- FPP 601 Glycerol Ester Gum
- FPP 701 Penta Ester Gum

Plasticizers for Industrial Applications

Plasticizers are essential additives used to improve the flexibility, workability, and durability of polymers. Forac range of high-performance plasticizers is designed to deliver excellent compatibility, low volatility, superior thermal stability, and long service life across various industrial applications such as PVC, rubber, adhesives, sealants, coatings and many more.

Available range of plasticizers

- Foraplex-80A/DOA
- Foraplex-80TM/TOTM
- Foraplex-80S/DOS
- Foraplex-80M/DOM
- Foraplex-40S/DBS

Upcoming range of plasticizers

- Foraplex-40M/DBM
- Foraplex-80PT/DOTP
- Foraplex-DEGDB/DGB
- Foraplex-90A/DINA
- Foraplex-10DBE/DBE
- Foraplex-20M/DEM
- Foraplex-20C/TEC
- Foraplex-62/620ESBO
- Foraplex-65/650ESBO

Existing Range of Solvents for Paint and Printing ink

Sr. No.	CHEMICAL NOMENCLATURE	NAME	APPLICATION
1	Glycerol Triacetate	Forsolv Triacetin	Used as a food additive. Acts as a solvent and humectant in sweeteners. Also used as a humectant, plasticizer, and solvent auxiliary in pharmaceutical products.
2	Butyl Di Glycol Acetate	Forsolv BDGA	Used in coatings and paint industries due to low volatility and high boiling point. Widely accepted as a flow promoter for baking finishes such as melamine, urea, phenol, or epoxy resin composites.
3	Butyl Glycol Acetate	Forsolv BGA	Improves gloss and flow of coatings baked at temperatures of 150–200°C. Primarily used as a solvent in paints, surface coatings, inks, and cleaning products.
4	2-Ethylhexyl Acetate	Forsolv 2EHA	Improves flow and film formation. Acts as a coalescing aid for emulsion paints. Also used in cleaners and paint removers.
5	N-Butyl Propionate	Forsolv n-BP	Used as a solvent and in the manufacture of perfumes and flavourings.
6	Ethylene Glycol Diacetate	Forsolv EGDA	Mainly used in thermoplastic acrylic coatings as a reflow solvent and in foundry core-binding applications.
7	N-Butyl Acetate	Forsolv n-BA	Used in paints, paint thinners, silicone sealants, chemical reactants, rubber, printing inks, adhesives (glues), lacquers, leather tanning, and disinfectants.

Para-Toluenesulfonic Acid (PTSA)

Para-Toluenesulfonic Acid (PTSA) is a strong organic sulfonic acid derived from toluene through sulfonation. It is widely used as an efficient acid catalyst due to its high acidity, thermal stability, and non-oxidizing nature, making it ideal for various chemical and industrial processes.

Applications

1. Resin & Polymer Industries
2. Pharmaceutical Industries
3. Agrochemical Industries
4. Paint & Coating Industries
5. Plastic & Rubber Industries
6. Dye & Pigment Industries

Solubility

Highly soluble in water, alcohols, aromatic solvents, and polar organic solvents.

Products

1. PTSA 65% (Liquid Grade)
2. PTSA 70% (Liquid Grade)
3. PTSA Solid (Crystalline Grade)

Upcoming Range of Solvents for Paint and Printing ink

Sr. No.	CHEMICAL NOMENCLATURE	NAME	APPLICATION
1	Ethylene Glycol Monoethyl Ether Acetate	ECA	Also known as ethylene glycol monobutyl ether acetate, butoxyethyl acetate, butyl glycol acetate, ethylene glycol butyl ether acetate, and acetic acid 2-butoxyethyl ester. Used as a solvent for lacquers, varnishes, enamels, and epoxy resins.
2	Propylene Glycol Diacetate	PGDA	Used as a plasticizer for cellulose acetate and also used in agricultural products.
3	Diethylene Glycol Monoethyl Ether Acetate	ECA-A	Used primarily as a coalescing aid in latex paints and as a solvent in printing inks. Also used as a urethane-grade solvent.
4	Ethyl Ethoxypropionate	EEP	Used by paint manufacturers, automotive industry, and other industrial applications. An excellent retarder solvent for high-performance bake and air-dried coatings.
5	Methoxypropyl Acetate	PMA	Used in dyes for furniture polish or wood stains, dye solutions and pastes for printing, processing of colour leather and textiles, and in ball-point pen pastes. Also acts as a coalescent in coatings, especially suitable for coatings containing polyisocyanates.
6	Dipropylene Glycol Monomethyl Ether Acetate	DPMA	Used as a solvent in paints, pastes, dyes, resins, brake fluids, inks, and in cosmetic formulations.
7	Iso Butyl Acetate	IBA	Mainly used in paints and coatings for wood varnishes, architectural coatings, printing inks, and adhesives.



Selection of Resins based on their Application

Resin Type	Product Code	Air Drying					Baking				Coil & Can Coating / Automotive				Wood Coating			
		Architectural	Auto Refinish	Primer	Industrial	Road Marking	Baking Enamels	Epoxy	Primer	Air Drying Cum Baking	Can / Tube Coating	Coil Coating	Automotive Top Coat/ Base Coat	Automotive Primers	NC Wood Coatings	Melamine Wood Coating	Wood Coating 1K PU	Wood Coating 2K PU
Urea Formaldehyde Resin	FS-1110-UF						✓		✓									
	FS-1110-UF-LF															✓		
	FS-1110-UF-H/S															✓		
Melamine Formaldehyde Resin	FS-2200						✓	✓						✓				
	FS-2210						✓		✓									
	FS-2220-H/S				✓					✓								
Short Oil Alkyd Resin	FS-3330						✓		✓						✓	✓		✓
	FS-3335						✓	✓	✓									
	FS-3345						✓								✓	✓		
	FS-3350						✓								✓	✓		
Medium Oil Alkyd Resin	FS-3360			✓	✓													
	FS-3365			✓	✓													
Long Oil Alkyd Resin	FS-3370	✓			✓													
	FS-3375	✓			✓													
Rosinated Alkyd Resin	FS-3350			✓	✓					✓								
	FS-3355			✓	✓					✓								

Selection of Solvents & PTSA based on their Application

SOLVENTS TYPE	Adhesives & Sealants	Cleaning Products	Cosmetics & Personal Care	Food & Beverage	Foundry Industry	Paints & Coatings	Pharmaceutical	Printing & Inksical	Surface Coatings
BDGA	✓	✓				✓		✓	
BGA	✓					✓		✓	✓
2EHA	✓								
n-BP	✓					✓			
EGDA	✓				✓	✓		✓	
n-BA	✓	✓				✓			
Triacetin			✓	✓			✓		
PTSA VARIANTS	Adhesives & Sealants	Cleaning Products	Cosmetics & Personal Care	Food & Beverage	Foundry Industry	Paints & Coatings	Pharmaceutical	Printing & Inksical	Surface Coatings
65% & 70%	✓	✓	✓		✓	✓	✓	✓	✓
Solid PTSA	✓				✓	✓	✓	✓	✓

Safety, Health and Environment

With strong principles of social commitment embedded within the company, all measures are taken to ensure perfect harmony with the delicate ecology surrounding the plant. As a part of its responsibility, the company has maintained 10,000 green trees surrounding the plant premises. Proper precautions are taken to ensure that there is no adverse impact on natural resources. Adequate standards are followed in handling solvents and hazardous chemicals.

Forace is a zero-discharge company powered by a state-of-the-art 1.5 MW solar facility, underscoring our dedication to environmental sustainability. We proudly hold ISO certification, which reflects our adherence to industry-best practices.

In addition, **Forace is certified with IATF 16949, ISO 45001:2018 14001:2015 and 9001:2015** demonstrating our robust quality management system and commitment to delivering the highest standards of excellence in our operations.

Our technology development team continuously upgrades product formulations with a view to minimise free monomers, BTX solvents, so as to control deterioration of environment at workplace.





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