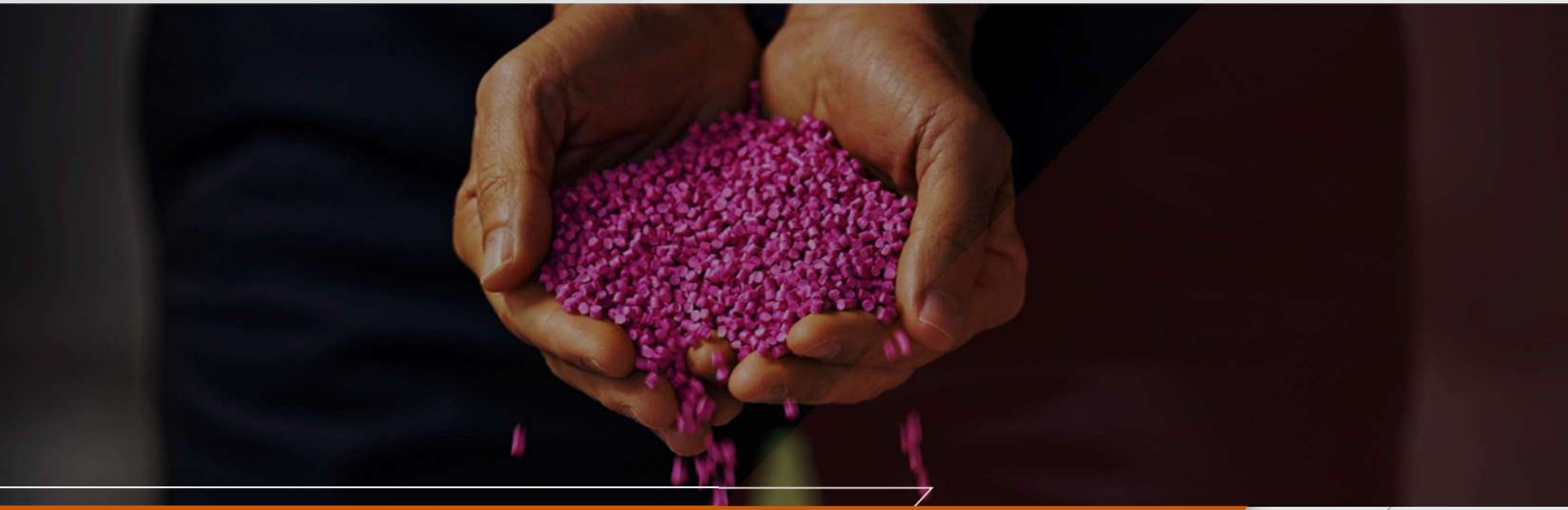
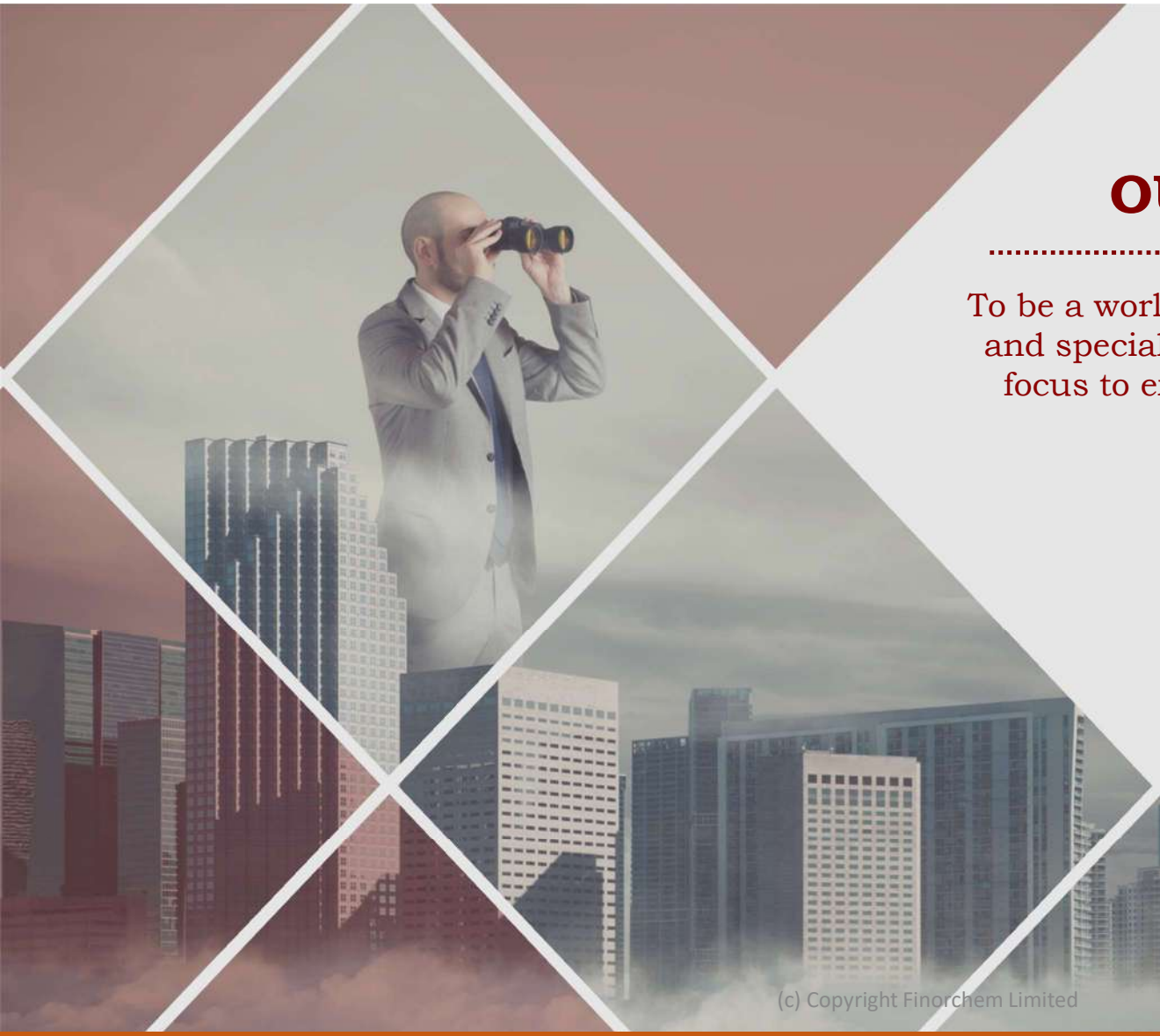


FINORCHEM LIMITED

CORPORATE INTRODUCTION



OUR VISION

To be a world class company in rubber and specialty chemicals, with a clear focus to exceed customer delights.

OUR MISSION

To deliver superior values to our customers, employees, suppliers, channel partners & shareholders, through our safe plant operations, keeping in mind preservation, biodiversity, conservation of natural resources in an environmental friendly manner, to benefit the society at large.

FINORCHEM JOURNEY

Parent Company: ACMECHEM LIMITED

Head quartered in Kolkata, India

Commenced in 1994

Company type- Public Limited

Founder – Mr. Narain Holani (Chemical Engineer, BITS Pilani, alumnus), having about 4 decades of industry experience, rubber & specialty chemicals industry specialist.

Number of manufacturing facilities – 1 @ G.I.D.C Panoli, District Bharuch, Gujarat India.

Total Capacity – 15000 MT

Acmechem Ltd. is IATF 16949 :2016, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018. certified company.

FINORCHEM JOURNEY

Acmechem acquired Merchem Limited. Enhanced production capacity and expanded product offerings
(2019)

Merchem plants restarted commercial operations. Increased **Total Production Capacity to 50000 MT**
(2020)

Merger of Acmechem & Merchem completed. Rechristened as Finorchem Limited.
(2022)

Finorchem established the **Technology Innovation Centre (TIC)**
(2023)

Resin Plant started with **30,000 MT** annual production.
(2024)

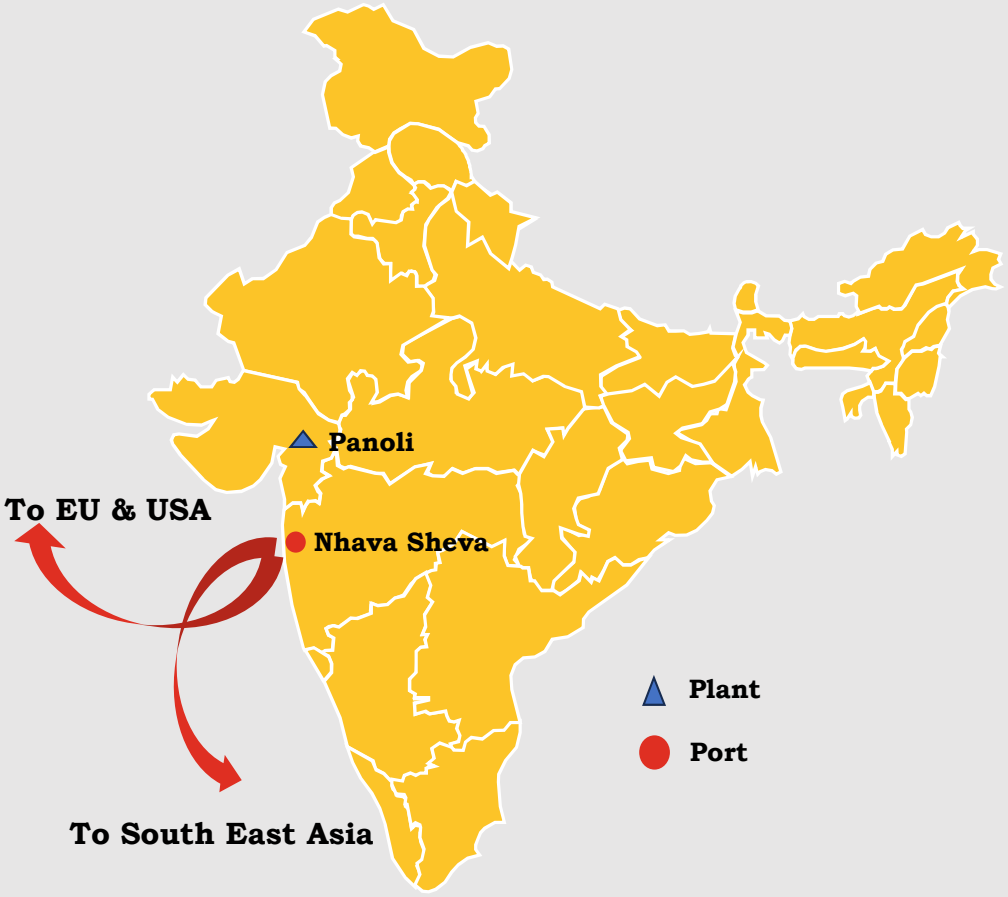
4ADPA Plant Started with **10000 MT** annual capacity.
(2025)

COMMITMENT TOWARDS SUSTAINABILITY

We are fully committed to manage our operation efficiently by preserving best in class workplace, and natural resources at large.

We are fully alligned with BRSR Framework initiated by Govt.of India and UNGC - SDGs

MANUFACTURING CAPACITIES



Product Capacity	
Plants	**Existing Capacity MTPA**
Resins (For Rubber)	28,500
Resins (For Adhesives)	1,500
Antioxidants	25,000
Peptizers	5,000
Accelerators & other Rubber Chemicals	20,000

We are one of the only players globally to have a diversified portfolio of both rubber chemicals and resins and catering to both rubber and adhesives space.

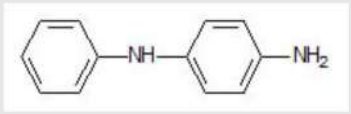
FINORCHEM RUBBER CHEMICALS

FINORCHEM
BREATHING CHEMISTRY

- **CHEMICAL PEPTIZER**
  - ✓ PEPTIZOL 7 (PCTP BASED)
  - ✓ PEPTIZOL 11 (DBD BASED)
- **VULCANIZING AGENT**
  - ✓ MERTEX OT 20 (INSOLUBLE SULFUR)
- **ACCELERATORS**
  - ✓ MERCURE MBT, MBTS, ZMBT & F
  - ✓ MERCURE CBS, TBBS, MBS, TBSI & DCBS
  - ✓ MERCURE TMTM, TMT (TMTD) & TBzTD
  - ✓ MERCURE ZDC (ZDEC), ZDBC & ZBEC
  - ✓ MERCURE DPG
  - ✓ ACMECURE DTDM
  - ✓ ACMECURE TP/S
- **RETARDERS**
  - ✓ MERETARD PVI (CTP)
- **ANTIOXIDANT NON-STAINING**
  - ✓ MERNOX SP
  - ✓ MERNOX 445
  - ✓ MERNOX CPL
  - ✓ MERNOX MBI
  - ✓ MERNOX MB2 (MMBI)
- **ANTIDEGRADANTS STAINING**
  - ✓ MERNOX 6C (6PPD)
  - ✓ ACMENOX BL / BLS (50 / 65 / 70)
  - ✓ MERNOX TQ (TMQ / TDQ)
  - ✓ ACMENOX 100 (DTPD)
- **PROCESSING AIDS**
  - ✓ ACMETOL 44
  - ✓ ACMETOL 50
  - ✓ ACMETOL 60
  - ✓ ACMETOL 212
  - ✓ ACMETOL 222
  - ✓ ACMETOL HT 254
  - ✓ ACMETOL HT 276
  - ✓ ACMETOL 1105
  - ✓ ACMETOL T
- **CHEMICAL INTERMEDIATE & FLOATING AGENT**
  - ✓ NaMBT 50% SOLUTION
- **ANTI TACK BATCH OFF POWDER**
  - ✓ ACMEANTISTICK 300
- **CARBON BLACK COUPLING AGENT**
  - ✓ MERNOX MMH
  - ✓ MERNOX IDH

FINORCHEM RUBBER CHEMICALS
(Back Ward Intégration)

❖ 4ADPA



CHEMICAL NAME: 4-Aminodiphenylamine

CAS NO: 101-54-2

SALIENT FEATURES

FINORCHEM LTD. SYNTHESIZE 4-ADPA IN CONTINUOUS SYNTHESIS MODE FOLLOWING NASH METHODOLOGY HAVING THE FOLLOWING CHARACTERISTICS:

- ✓ ACHIEVING "MAKE IN INDIA" GOALS – IMPORT SUBSTITUTION
- ✓ RESISTANCE TO OXIDATION, OZONE ATTACK, AND FLEX FATIGUE IN RUBBER
- ✓ LOW IMPURITY CONTENT
- ✓ HIGH PURITY
- ✓ ACT AS A CHEMICAL INTERMEDIATE – USED IN THE MANUFACTURE OF ANILINE TYPE DYES
- ✓ ACTS AS A MAJOR RAW MATERIAL OF 6PPD AND IT'S DERIVATIVES
- ✓ USED IN THE SYNTHESIS OF BIODEGRADABLE ELECTROACTIVE HYDROGELS

ANTI REVERSION AGENTS

FINORCHEM
BREATHING CHEMISTRY

- **FINOLINK HTS [Hexamethylene-1,6-bis(thiosulfate), disodium salt, dihydrate]**
  - ✓ FORMS HYBRID CROSSLINKS
  - ✓ IMPROVES FLEXIBILITY
  - ✓ ANAEROBIC STABILITY THROUGH ROBUST CROSSLINKS
  - ✓ ENHANCED DURABILITY
  - ✓ FATIGUE RESISTANCE
  - ✓ ADHESION RETENTION
  - ✓ SUITABLE FOR BELTS AND BODY PLY OF RADIAL TIRES.
  - ✓ ENHANCES CUT RESISTANCE IN OTR TIRES.

- **FINOLINK 900 [1,3-bis (citraconimidomethyl) benzene]**
  - ✓ POST-CURING FORMATION OF THERMALLY STABLE CROSSLINKS
  - ✓ ENHANCES REPAIRABILITY.
  - ✓ NON-REACTIVE INITIALLY DURING VULCANIZATION.
  - ✓ EFFECTIVE UNDER THERMAL STRESS
  - ✓ IMPROVED REVERSION RESISTANCE
  - ✓ CONTROLS HEAT BUILDUP AND MAINTAINS ADHESION IN HIGH-SULFUR COMPOUNDS,
  - ✓ IMPROVES THERMAL AGING RESISTANCE.

- **FINOLINK BDzTH [1,6-bis(N,N'-dibenzylthiocarbamoyldithio)-hexane]**
  - ✓ ENHANCED HEAT RESISTANCE AFTER OVER-CURING OR HOT AIR AGING
  - ✓ SUITABLE FOR NR, BR, SBR COMPOUNDS, AND SILICA-BASED FORMULATIONS
  - ✓ STABLE C-C CROSSLINK FORMATION – ENHANCES THERMAL STABILITY
  - ✓ LOWERS SULFUR AND ACCELERATOR DOSAGES: PREVENTS INCREASED MODULUS AND HARDNESS.
  - ✓ OPTIMIZED PERFORMANCE IN TIRES: REDUCES HEAT BUILDUP AND EXTENDS BLOWOUT TIME
  - ✓ IMPROVES LOW ROLLING RESISTANCE IN HIGH-PERFORMANCE TIRE APPLICATIONS

CARBON BLACK COUPLING AGENTS

FINORCHEM
BREATHING CHEMISTRY

- **MERNOX MMH [N'-(1,3-Dimethylbutylidene)-3-hydroxy-2-naphthohydrazide]**
  - ✓ HYDRAZIDE DERIVATIVES – MELTING POINT 150 °C
  - ✓ FORMS COMPLEX WITH ZINC . FORM SHORT AND STABLE SULPHUR CROSSLINKS.
  - ✓ IMPROVE FILLER DISPERSION – REDUCE HYSTERISIS LOSS
  - ✓ IMPROVE THERMAL RESISTANCE – PREVENT CRACK PROPAGATION
  - ✓ USED IN OTR UNDER TREAD, TRUCK TYRE TREAD , PCR TYRES

- **MERNOX IDH [Isophthalic Acid Dihydrazide]**
  - ✓ DIHYDRAZIDE DERIVATIVES – HIGH MELTING POINT 225 °C
  - ✓ REDUCE HEAT BUILD UP AT TIRE CROWN.
  - ✓ REDUCE THERMAL MECHANICAL DAMAGE AT TIRE CROWN.
  - ✓ REDUCE ROLLING RESISTANCE
  - ✓ IMPROVE LONG TERM WEAR RESISTANCE
  - ✓ USED IN OTR UNDER TREAD, TRUCK TYRE TREAD , PCR TYRES

BIS MALEIMIDE (BMI) PRODUCTS

FINORCHEM
BREATHING CHEMISTRY

❖ Merlink MDP(Bismaleimide)[4,4'-Bismaleimidodiphenylmethane]

- ✓ OPERATES EFFECTIVELY UNDER EXTREME TEMPERATURES RANGING FROM -200℃ TO 260℃.
- ✓ MAINTAINS OUTSTANDING MECHANICAL PROPERTIES ACROSS THE TEMPERATURE SPECTRUM, LIKE, HIGH TENSILE STRENGTH AND TOUGHNESS AND EXCELLENT ABRASION RESISTANCE.
- ✓ DEMONSTRATES SUPERIOR ANTI-RADIATION, ANTI-AGING AND ANTI-CHEMICAL CORROSION PROPERTIES.
- ✓ FEATURES EXCELLENT ADHESION RESISTANCE AND HUMIDITY RESISTANCE.
- ✓ GOOD MISCIBILITY WITH VARIOUS FILLERS AND FIBERS AND EXHIBITS GOOD WETTABILITY.
- ✓ EXCELLENT HEAT RESISTANT PROPERTY AND MAINTAINING HIGH-TEMPERATURE RIGIDITY AND ADDRESSING PROLONGED COMPRESSION LOAD-INDUCED CREEP.
- ✓ HELPS SLOW THE DECLINE IN CROSSLINK DENSITY CAUSED BY HIGH TEMPERATURES.
- ✓ USED IN ABS, EPDM ETC. AS A CROSSLINKING AGENT AND RUBBER VULCANIZATION AGENT.

❖ MERCURE HVA-2 [1,6-bis(N, N'-1,3-Phenylenedimaleimide]

- ✓ EFFECTIVE IN ETHYLENE-BASED ELASTOMERS (EPDM, EPM, EVA, EOM).USEFUL IN ACRYLATE-BASED ELASTOMERS (AEM, ACM).
- ✓ SUITABLE FOR CHLORINATED AND CHLOROSULFONATED POLYETHYLENE (CPE, CSM).
- ✓ MULTI-FUNCTIONAL COAGENTS IMPROVE CROSS-LINK YIELDS WITH PEROXIDE CURING AGENTS.
- ✓ ACTS AS A CROSS-LINKING BRIDGE BETWEEN POLYMER CHAINS.INCREASES BOTH RATE AND STATE OF CURE IN EPDM ELASTOMERS.
- ✓ PROVIDES FAST CURE RATES AND GOOD CURE PROPERTIES IN ETHYLENE ACRYLIC ELASTOMERS (AEMS).
- ✓ COMBINATION WITH MBTS OR TMTD OFFERS MORE PROCESSING SAFETY COMPARED TO THIOUREA CURING AGENTS.

RESINS

- **TACKIFIER RESINS**
  - ✓ FINOREX 1068
  - ✓ FINOREX 1068H
  - ✓ COLOFIN NS
  - ✓ FINOREX CP 90
- **SUPER TACKIFIER RESINS**
  - ✓ FINOREX KR 140
  - ✓ FINOREX TR 140
- **REINFORCING RESINS**
  - ✓ FINOREX PN 160B
  - ✓ FINOREX RR 90 & 90H
  - ✓ FINOREX RR 95 & 95H
  - ✓ FINOREX RR 110
- **HEAT REACTIVE RESINS**
  - ✓ FINOREX PB 1045
  - ✓ FINOREX PB 518, 154 , 212 & 110
- **CUT & CHIP RESISTANT RESINS**
  - ✓ FINOREX CCR 120
- **DRY BONDING AGENTS**
  - ✓ ACMEBOND HMMM (65% & 72%)
  - ✓ ACMEBOND HMT
- **TREAD ENHANCEMENT RESINS (TEA)**
  - ✓ **PAMS RESIN**
    - ✓ FINOREX AMS 85 & 100
  - ✓ **TERPENE PHENOL RESIN**
    - ✓ FINOREX CP 90
  - ✓ **POLYTERPENE RESIN**
    - ✓ FINOREX PT
- **BONDING RESINS**
  - ✓ **RF RESIN**
    - ✓ FINOREX B18S
    - ✓ FINOREX B19S
  - ✓ **RF STYRENE RESIN**
    - ✓ FINOREX B20S
  - ✓ **MODIFIED RF RESIN**
    - ✓ FINOREX B25S
  - ✓ **PRF RESIN**
    - ✓ FINOREX BPRF
- **RESORCINOL DISPERSIONS**
  - ✓ **RESORCINOL – SILICA BLEND**
    - ✓ FINOREX RS

WHY FINORCHEM?

Tried and tested reliable partner across the globe for consistency in quality & 100% on time delivery

A robust & well diversified supply chain system to ensure availability of product for customer

State of the art manufacturing facilities , with modern equipment for automation and quality systems.

Energy conservation, reduction of wastages, conservation of natural resources.

Customer's aspirations relating to the products and feedback are constantly asked for, thereby new range of products are introduced

We are embarking upon ZLD for reduction of effluent, water conservation.

Location Advantage – Gujarat
Highly Industrialized state ensures easy availability of skilled manpower, machinery & Raw Material

We are complying with necessary SVHC, RoHS, PAH and other international standards.

FINORCHEM CERTIFICATES

ISO 14001: 2015


DNV

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that the management system of
Finorchem Limited
Unit-I, 412, GIDC Estate, P.O.: Panoli, Taluka: Ankleshwar, District : Bharuch - 394116, Gujarat, India
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Environmental Management System standard:
ISO 14001:2015

This certificate is valid for the following scope:
Design, manufacture and supply of rubber chemicals

ISO 9001: 2015


DNV

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that the management system of
Finorchem Limited
Unit-I, 412, GIDC Estate, P.O.: Panoli, Taluka: Ankleshwar, District : Bharuch - 394116, Gujarat, India
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:
Design, manufacture and supply of rubber chemicals

ECOVADIS

ISO / IEC 17025:2017


National Accreditation Board for Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

TESTING LABORATORY, FINORCHEM LIMITED

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

14 & 24/1, GIDC ESTATE, P.O. PANOLI, ANKLESHWAR, GUJARAT, INDIA

in the field of

TESTING

Certificate Number: TC-13761

Issue Date: 24/02/2025 Valid Until: 23/02/2029

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

Name of Legal Entity: FINORCHEM LIMITED

Signed for and on behalf of NABL

Anita Rani
Director

N. Venkateswaran
Chief Executive Officer

ISO 45001: 2018


DNV

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that the management system of
Finorchem Limited
Unit-I, 412, GIDC Estate, P.O.: Panoli, Taluka: Ankleshwar, District : Bharuch - 394116, Gujarat, India
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Occupational Health and Safety Management System standard:
ISO 45001:2018

This certificate is valid for the following scope:
Design, manufacture and supply of rubber chemicals

IATF 16949:2016


DNV

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that the management system of
Finorchem Limited
Unit-I, 24, 24/1, GIDC Industrial Estate, Panoli, Taluka: Ankleshwar, District: Bharuch - 394116, Gujarat, India

and, if applicable, the remote supporting locations as mentioned in the Appendix accompanying this Certificate

has been found to conform to the Quality Management System standard:
IATF 16949:2016

This certificate is valid for the following scope:
DESIGN AND MANUFACTURING OF RUBBER CHEMICAL - ANTI DEGRADANT, PROCESSING & PERFORMANCE AIDS, ACCELERATORS, RETARDER, PEPTIZER

EXCLUSION: NONE

FINORCHEM LIMITED, PANOLI

(Aerial View)

THIAZOLE & SULPHENAMIDE PLANT

High pressure Autoclave facility using Aniline, CS2 and Sulphur to produce MBT.

MBT is further taken for Oxidative condensation with respective Amines to produce Sulphenamides

BACKWARD INTEGRATION - 4ADPA

- **LOCAL 4ADPA PRODUCTION**:

The 4ADPA plant with 10,000 MT annual capacity is now operational.

- **ENHANCED 6PPD PRODUCTION**:

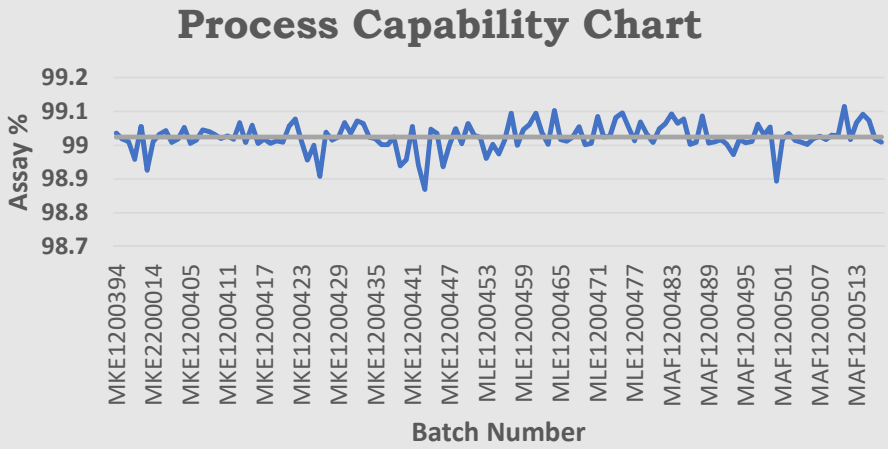
Achieving "Make in India" goals and boosting 6PPD capacity.

- **SUPERIOR QUALITY**:

Patented technology ensures higher purity and improved 6PPD quality.

MERNOX 6C (6PPD)

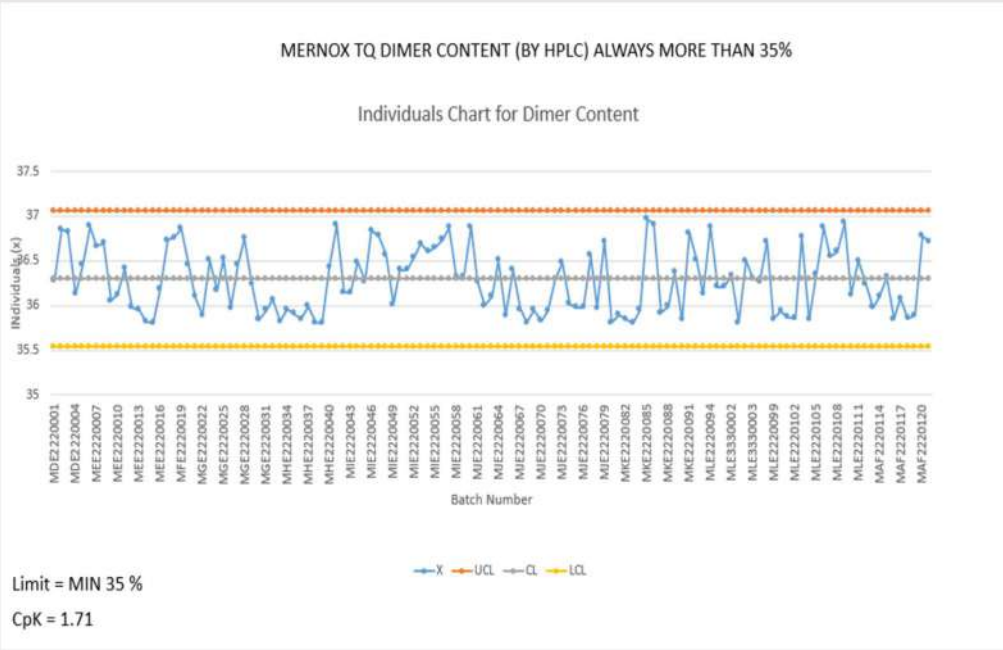
Product Name	Product Description	CAS No	Supply Form
Mernox 6C	N-1,3-dimethylbutyl-N'-phenyl-p-phenylene-diamine (6PPD)	793-24-8	Purple Brownish pastilles



TMQ ANTIOXIDANT PLANT

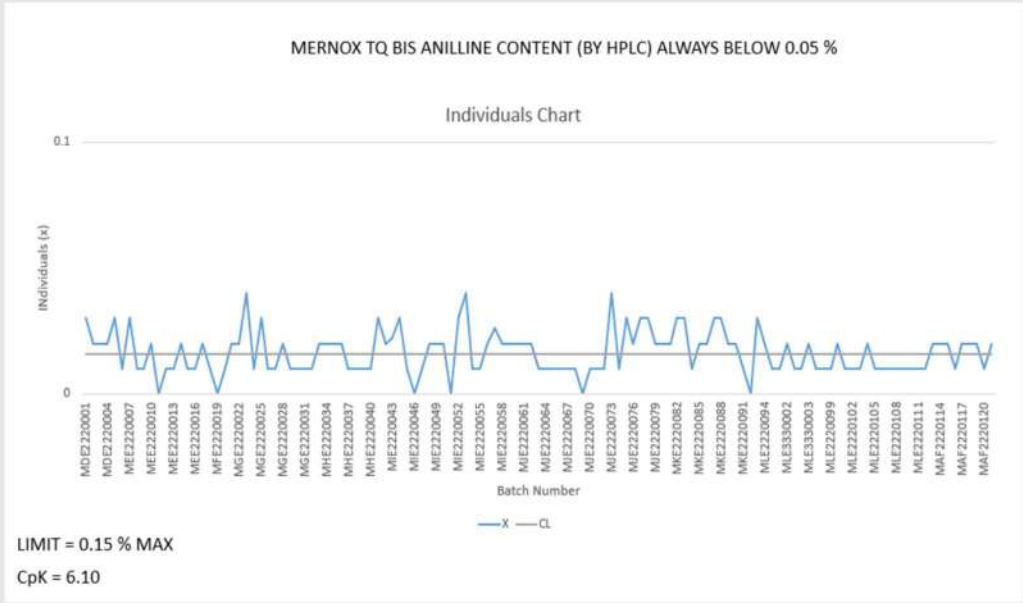
- TMQ New manufacturing facility with capacity of 8000 MT/Year
- High Dimer content
- Low monomer
- Low BIS Aniline (impurities)

TMQ QUALITY PRODUCED AT FINORCHEM



Limit = MIN 35 %

CpK = 1.71



LIMIT = 0.15 % MAX

CpK = 6.10

FUTURE GROWTH & EXPANSION PLANS

6PPD Expansion is planned to Increase capacity from 15,000 MT/Annum to 20,000 MT/Annum

Rubber Accelerator Expansion is Planned to increase the capacity from 5000 MT/Annum to 10,000 MT/Annum

RESIN PLANT

Resin plant is equipped with 5 different streams as per nature of products.

- Stream 1 – Phenolic Resin
- Stream 2 – Tackifier Resin
- Stream 3 – Resorcinol Resin
- Stream 4 – PAMS/Terpene Resin
- Stream 5 – Specialty Resin

Production Capacity approx. : 30000 TPA

Manufacturing Building – Ground + 3 floor 6000 Sq^2 M

MCC & PCC Building - Ground + 2 floor 660 Sq^2 M

Resin plant is equipped with 5 different streams as per nature of products.
Advantages : No cross contamination between different resins

RESIN PLANT MANUFACTURING CAPACITY

NO	Stream	Type of resin	Capacity (monthly)
1	Stream 1	Terpene resin & AMS resin	500 tons
2	Stream 2	PTOP and PTBP tackifier resin	600 tons
3	Stream 3	Reinforcing Resin	600 tons
4	Stream 4	Resorcinol resin	550 tons
5	Stream 5	Viscous liquid resin	400 tons
		HMMM Resin	
		PF and Hexa Blend resin	

RESIN PLANT: REACTORS

TECHNOLOGY INNOVATION CENTRE

TIC was established at Panoli to meet the upcoming requirements in the Rubber Industries. This consists of:

R&D Synthesis Lab

- To develop new sustainable chemicals supporting rubber & allied Industries for import substitution.

Analytical Development Lab

- To characterize the molecules developed in the R&D Lab.

Rubber Application Centre

- To evaluate the developed chemicals in the rubber compound for its rheological and physical properties.

Pilot Plant

- To scale up the process developed by the R&D and to manufacture the material in on a pilot scale production prior to commercial production.

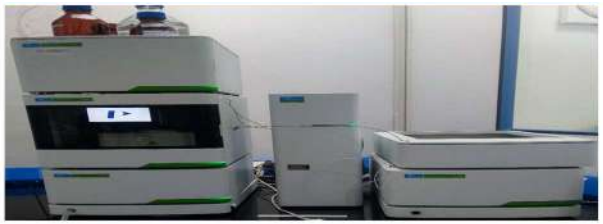
R&D SYNTHESIS LAB

ANALYTICAL DEVELOPMENT LAB

Differential scanning calorimetry (DSC) TA MAKE – DSC-25

Fourier-Transform Infrared Spectroscopy (FTIR) Perkin Elmer Spectrum Two

High performance liquid chromatography (LC-300) Perkin



Gas Chromatography (Clarus-590) Perkin Elmer

UV-Vis Spectrophotometer lambda-365+ Perkin Elmer

Size Exclusion Chromatography (SEC)
GPC For Molecular weight Determination of Resin

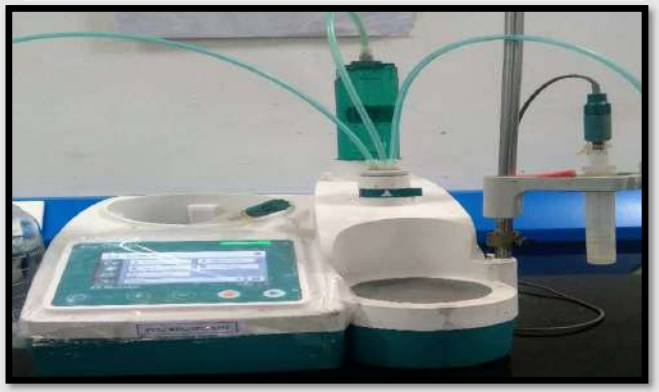
ANALYTICAL DEVELOPMENT LAB

Softening point C&B Mettler

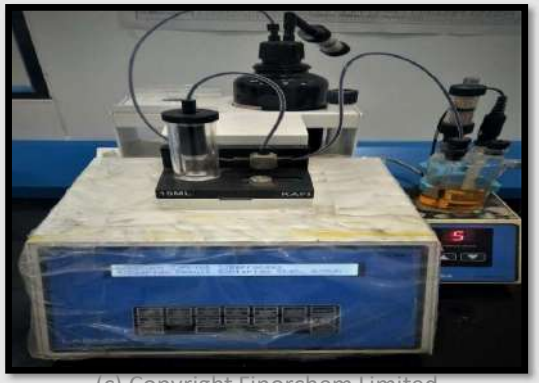
Softening point R&B

Melting Point apparatus

Potentiometry titrator



Karl Fischer Titrator



WORLD CLASS R&D CAPABILITIES

Mixing & Process Testing

- Banbury Mixer
- Two Roll Mill
- Curing Press
- Premier RPA-ALPHA
- Premier Mooney Viscometer
- PICMA Tack Tester

Product Testing

- Universal Testing Machine (Zwick)
- Weighing balance with Densikit
- DIN Abrader
- Impact Resilience Tester
- Durometer- Shore A
- Compression set & Tension Set

Flex-Fatigue & Adhesion Testing

- Dematttia Flexometer
- Fatigue to failure test
- Goodrich Flexometer
- Temperature & Humidity Chamber
- Fabric adhesion
- Steal Cord Adhesion
- Bead Wire Adhesion

Ageing Facilities

- Box air ageing Oven
- Multi cell air ageing Oven
- Temperature & Humidity Chamber
- Salt ageing jar

EQUIPMENT FOR MIXING & CURING

Banbury Mixer- 1.6L : BAINITE

Two Roll Mill

Curing Press : SANTEC

EQUIPMENT FOR TESTING

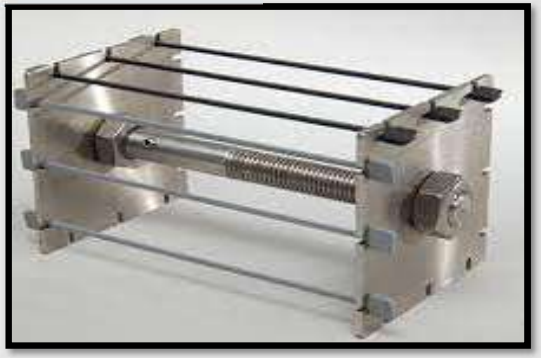
Premier RPA

Mooney Viscometer

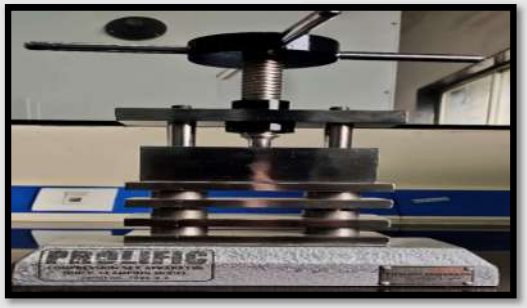
Picma Tack Tester

Hardness Tester

Tension SET



Compression SET



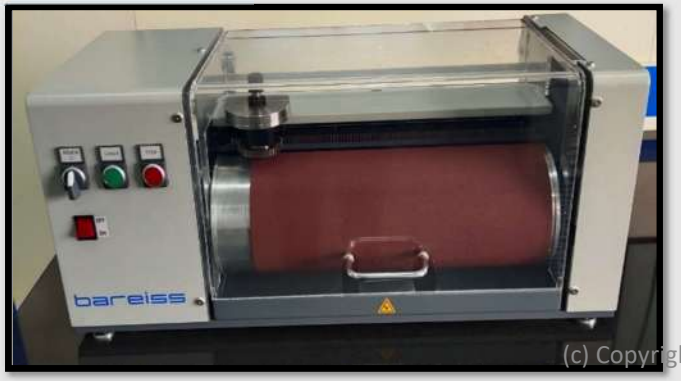
EQUIPMENT FOR TESTING

Specific Gravity Balance

Impact Resilience Tester

Universal Testing Machine Zwick

DIN Abrader



EQUIPMENT FOR TESTING

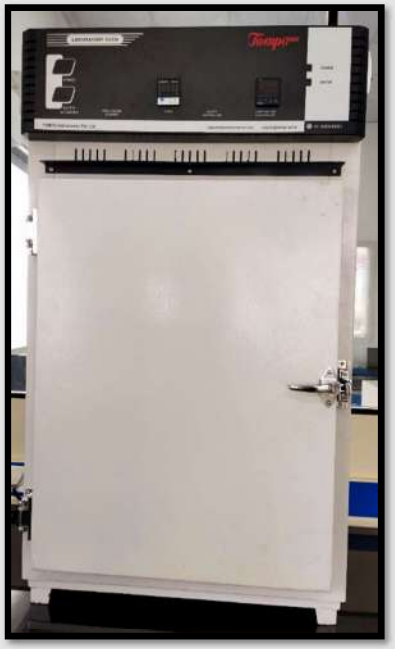
FTFT

Dematttia Flexometer

Goodrich Flexometer

EQUIPMENT FOR AGEING

Box Air Ageing Oven



Salt ageing Jar

Multi-cell air ageing Oven

Temperature & Humidity Chamber

FINORCHEM
BREATHING CHEMISTRY

PILOT PLANT

- To scale up the process developed by the R&D and to manufacture the material in on a pilot scale production prior to commercial production.

SUSTAINABILITY INITIATIVES

- Effluent Reduction: Enhanced production processes to lower effluent quantity and quality in accelerator production.
- Sustainable Materials: Use of soybean oil as an anti-dusting agent for TBBS; 8-10% of materials are sustainable and renewable.
- Energy Efficiency: Implementation of energy-efficient agitation systems for better reaction efficiencies and reduced cycle time. Installed a 350 KW steam turbine.
- Renewable Energy: Installation of 346 KWp solar panels on plant rooftops to harness renewable energy. Using natural gas for cleaner steam production.
- Effluent Treatment: New ETP facility featuring Soil Biotechnology (SBT) for green engineering bio-conversion processes and Multiple Effect Evaporation (MEE).

EFFLUENT TREATMENT PLANT

- Finorchem's Effluent Treatment Plant (ETP) system is designed with a strong emphasis on sustainability and environmental responsibility.

- One of the standout features of this system is its green rooftop.
- This not only enhances the aesthetic appeal of the facility but also contributes to improved energy efficiency and biodiversity.

OUR VALUED CUSTOMERS

INTERNATIONAL PRESENCE

We are well-positioned to support our global customers with Distributors in 20+ countries

GLOBAL STRATEGY

Solutions Supplier

Finorchem aims to be a value based supplier with wide range of grade producing capabilities

Technology Collaboration

Aims to build customized solutions based on collaborative approach

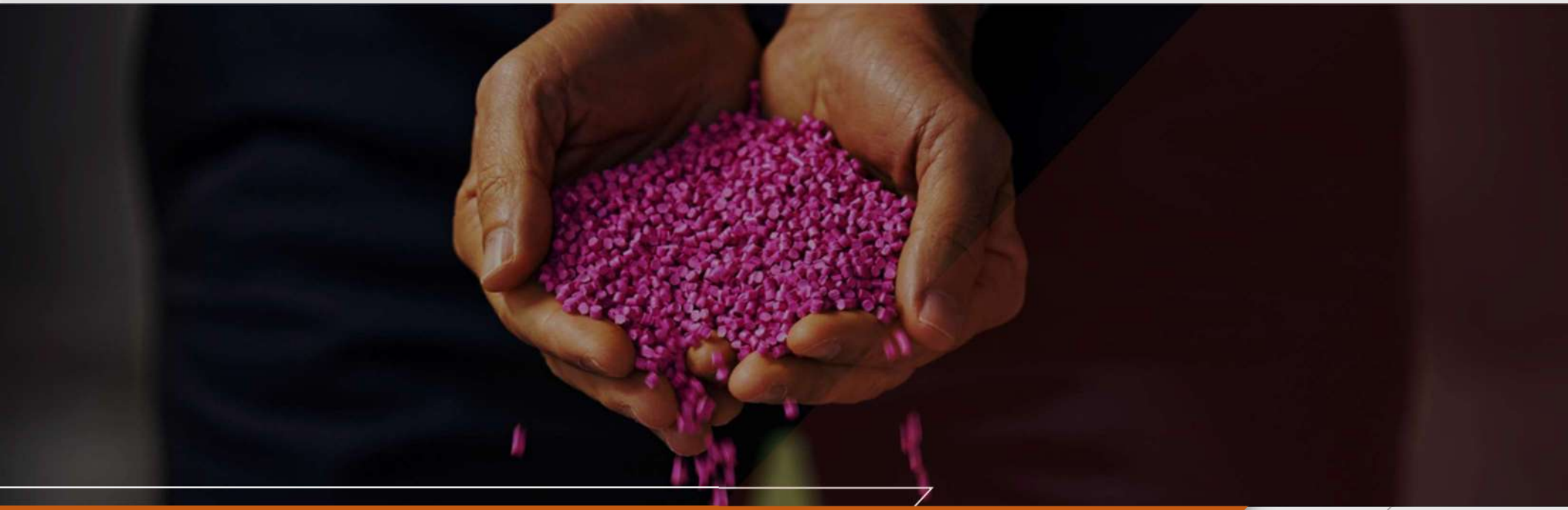
Vendor Managed Inventory Model

Consistent delivery across the globe facilitated by network of warehouses

Finorchem is prepared to be a long term value based supplier for strategic cooperation

FINORCHEM CORPORATE VIDEO

link: - https://youtu.be/ffH0pBdMvjA?si=MrfDFm_icz0wUOEN



THANK YOU

www.finorchem.com.