



ICI PAKISTAN LTD.





Bringing
substance
to life



ICI PAKISTAN LTD.

Who We Are

ICI Pakistan Limited is a dynamic and growing manufacturing and trading company, with a rich history that pre-dates the formation of Pakistan itself. In December 2012, Lucky Holdings Limited acquired the shareholding of ICI Omicron B.V., and ICI Pakistan Limited became part of the Yunus Brothers Group (YBG).

The Company provides essential products for a diverse range of applications in almost every industry in Pakistan. The primary Businesses of ICI Pakistan Limited include Soda Ash, Polyester, Life Sciences and Chemicals & Agri Sciences. The Company's product portfolio includes soda ash, polyester staple fibre (PSF), pharmaceuticals, nutraceuticals, animal

health products, general and specialty chemicals, and agricultural products (including chemicals, field crop seeds, vegetable seeds and more).

In addition, ICI Pakistan Limited has a growing footprint in the infant formula business in a joint venture partnership with Morinaga Milk Industry Company Limited (Morinaga) of Japan, and Unibrands (Private) Limited (Unibrands).

In 2017, ICI Pakistan Ltd. decided to setup a Masterbatch manufacturing facility thus taking another strategic step towards fulfilling the Company's growth aspirations by enhancing the product portfolio of its Chemicals & Agri Sciences Business.



Manufacturing Facility & Equipment

We have setup a three-storey Masterbatch manufacturing facility at our premises in West Wharf, Karachi. Our production includes custom colours and specialised additives, catering to various industries such as packaging, construction, tents and tarpaulin, food, appliances, automotive and consumer goods.

Our German compounding systems and extruders are particularly suitable for the processing of Masterbatch because of their advanced functionality of

homogenisation, dispersion (splitting of the agglomerates), wetting and distribution of the pigments / additives/fillers in the polymer matrix, thus, enabling our customers to achieve target colouring and modification of other properties. The top-notch German engineered equipment provides excellent dispersion at high throughput rates, high pigment and additive loading levels and economical colour changes which allow us to manufacture high quality products for our customers.



Research & Development (R&D)

We believe in constantly evolving and growing by offering our valued customers innovative and premium quality products that satisfy their business needs. Our production lines are backed by a state-of-the-art R&D laboratory, based on latest European technology, for ongoing product development and quality assurance.

Our well-equipped R&D facility can also consistently deliver a broad spectrum of new and customised solutions for tailor-made Masterbatches with excellent price benefit ratios. Our well-trained and specialised polymer technologists are committed to new product development and extending customer support that relate to all technical queries.



Product Offerings

Colours

- Blue
- Yellow
- Green
- Red
- White
- Black
- Customisation: We also offer tailor-made colours for use in polyolefin, polymers (PVC, LLDPE, HDPE, LDPE, and PP) and all other engineering polymers (ABS, HIPS, GPPS, EVA etc.), in line with each customer's unique requirements.





Additives:

Clarifying/Nucleating: Used to clarify primarily PP resin by influencing the degree of crystallinity of polymers and increasing its tensile strength. It can be used in products manufactured through processes such as injection moulding, blow moulding and thermoforming. It also improves the:

- o mechanical properties and transparency
- o crystallisation temperature of polymers resulting in shortening of the moulding cycle time, thus decreasing energy requirement.

Foaming Agent: Used to reduce weight and process cycle time of the injection moulding part without compromising its functional properties. The dosing of the Foaming agent is like any other additive Masterbatch. It also eliminates skin marks on injection moulded parts.

Flame Retardants: Used to prolong combustion in plastics. There is no universal flame retardant additive for all plastics, rather each flame retardant is tailored to a particular polymer and a particular flammability.

Chain Extender/IV Enhancer: Used to increase the Intrinsic Viscosity (IV) and tensile strength of multiple condensation polymers by 20-40% thus providing increased molecular weight and improved melt strength.

Anti-fogging: Used to reduce surface tension which results in a uniform layer of water on the surface. It improves light transmission and light transparency benefitting both agricultural and food packaging applications. It also prevents fogging of transparent food packaging and agricultural films and is available for LDPE, LLDPE and PVC films.

UV Stabiliser: Used to protect the plastic article from UV radiation and photo-oxidation to assure the plastic performance in different climate zones. It can be used for a variety of thermoplastic processes (i.e. injection moulding, blow moulding, compression moulding, extrusion etc.). In addition, the UV Stabiliser provides:

- o Increased shelf life for end products
- o Ability to store parts outside for longer periods
- o Protection against premature colour fading

Slip Additive: Used to increase the processability of plastics by minimising the frictional resistance between plastic surfaces. It is extensively used in the manufacturing of polyolefin films and is characterised with:

- o High slip performance with improved stability
- o Performance maintenance even at high temperatures
- o Relatively less odour

Anti-slip: Used to bring roughness in the plastic surface by reducing slippage property and increasing throughput

Anti-Static: Used to regulate static build up on plastic surfaces. It helps in preventing the buildup of static electric charge and minimises dust accumulation. Short-term and long-term anti-static solutions are available based on our customer requirements and is available for use in polyolefin and flexible PVC films.

We are constantly working on various different additive Masterbatches in our R&D facility to add value to your finished products.



Advanced Quality Assurance

Our sophisticated quality control facilities are comparable to the best in the world. All production batches are subject to processability tests for a wide range of critical performance properties. These tests are conducted on standard processing equipments in the laboratory, simulating actual processing.

Following are some of the advanced testing facilities that we have:

Melt Flow Index – Tester

Computerised spectrophotometer

Lab mixer

Single screw lab extruder

Blown film extruder

Injection moulding machine

Filterability test extruder

Oven and muffle furnace

Delta P Tester

Latest twin screw co - rotating extruder

Pressure index test for Fillers/Polywhite

Pigment / TiO₂ / Carbon Black dispersion

Weatherometer



Basic RM Testing

- Polymers
- Pigments
- Additives
- Dispersing Agents
- Functional Fillers

Testing Type

- MFI
- Moisture Content
- Fish Eye / Contamination
- Color Strength
- Color Tone / Clarity
- Odor
- Heat and Light fastness
- Bleeding Characteristics
- Whiteness / Yellow Index, Jetness
- Melting Point
- Molten Clarity

Finished Product Testing

- White & Black Masterbatch
- Color Masterbatch
- Additives
- Fillers
- Compounds

Testing Type

- Ash / Carbon Content
- Moisture Content
- Dispersion
- Contamination, Fines, Shapes
- Opacity, Whiteness / Yellow Index
- Odor
- Shade / Color Match
- Migration
- Bulk Density
- Filtration Test
- No. of Granules (per gram)



ICI PAKISTAN LTD.

ICI House 5 West Wharf Karachi 74000
M +92 332 0SHADES (742337)
E shades@ici.com.pk
UAN +92 21 111 100 200

