

SILPAULIN[®]

**WATERPROOF BY BIRTH
AS PER IS 14611 - 2016 STANDARDS
THE TOUGHEST PLASTIC COVERING FROM XF FILM**





Yahi Hai Asli

An acknowledged leader of the Indian plastics industry, the Supreme Industries processes around 5,00,000 tonnes of polymers annually. These volumes make it one of the largest polymer convertors in the country.

Supreme offers the most diversified product portfolio in the plastics industry. Its existing 28 state-of-the-art plants and 2 new plants envisaged to be commissioned during 2023-24, at strategic locations country-wide feature new generation technologies accessed from world leaders and developed internally.

Complementing this powerful manufacturing network are strong in-house facilities for new product development, that have helped Supreme innovate several path-breaking products in India.

Cross laminated films, Multilayer films, SWR Plumbing Systems, Silent Pipe Systems, Lacquer finish & Painted furniture, Low density cross-linked PE foam, Irradiation cross-linked PE foam, EPDM foam, Injection Moulded Pallets, Underground Drainage & Sewerage Systems, Cable Shield Electrical Conduit System, Industrial Valves, Plain & Braided Hoses, Bath Fittings and Manholes are some of the products pioneered in the country by Supreme.

Today, Supreme products are used by satisfied customers not just in India, but across the globe.

GROWTH-A WAY OF LIFE!

From tiny acorns grow mighty oaks.

For a corporate entity that made a small beginning 80 years ago, Supreme's transition to a dynamic conglomerate at the helm of industry today, is nothing short of inspiring.

The Supreme Group's net turnover is likely to cross ₹145 billion (around US\$ 1.8 billion) by 2022-23, with that of the flagship Supreme Industries Limited, alone poised to cross ₹90 billion over the same period.

While volumes are ever on the increase, and new products continue to be added, the Group has made consolidation the cornerstone of further growth.

The focus is increasingly on developing superior, specialized application-specific variants in each product category -- to give better value to the customer and spread smiles in lives of millions.

It is just one reason why Supreme continues to be the leader in most business segments that it is active in. Supreme products are today available in every nook & corner of the country through a wide network of distributors & dealers.



UV - STABILISED FILM (TARPS)

Made in India, used around the world

Supreme's XF Division produces this revolutionary film that is arguably the toughest plastic covering sheet available throughout the world. Developed by bonding multiple layers of film with a cold rolling technology available with just a handful of companies in the world, Silpaulin has the highest strength-to-weight ratio among all films, just one-seventh the weight of the conventional canvas tarpaulins.

The superior quality and strength of this film comes from the technology sourced from an innovative Swiss company, M/s Rasmussen Polymer Development AG. The XF Division's three sophisticated plants at Halol, Getmuvala and Silvassa are equipped to manufacture up to 30,000 MT film per annum. Silpaulin has won the prestigious 'Worldstar' Award for product excellence. The film further conforms to IS : 14611-2016, which is equivalent to comparable ASTM standards.

The quality strengths of Silpaulin have also been winning customers across the world. It continues to be exported to nations from Europe to the Middle East, from the Americas to Pacific Islands & Africa.

Unmatched Attributes

In addition to its unmatched strength, Silpaulin also offers the assurance of 100% waterproofing. Its heat-sealed joints further guarantee that there is no leakage whatsoever. It is all weather-proof, with the ability to withstand tough extremes of weather and climate. It is specially UV-treated to resist radiation, and is inert to most chemicals and acids. Excellent tensile strength, tear and puncture resistance help Silpaulin withstand the impact of sharp edges and blunt objects.

At the same time, its high elongation and flexibility enable it to be draped over odd-shaped objects. Its light weight makes it extremely easy to handle, transport and use. Fully recyclable, it is also an environment-friendly film.

More importantly, Silpaulin can be supplied in customized sizes, thicknesses and colours. Films from 30 gsm up to 300 gsm thickness and up to 9 feet in seamless width can be ordered. It is significant to note that the XF Division has taken customization to exciting new levels.



It is interesting to note that Supreme has exported a single piece sheet to cover an entire football field in Europe! And it has also supplied tailor-made integrated machine covers ranging up to 70 feet in length.

Silpaulin is ideal for uses like pond and canal linings that require complete waterproofing.

For the same reason, it is a reliable solution for covering raw materials and finished products during transportation, for shed covers, temporary shelters, pandals and mandaps.

In agriculture too, Silpaulin is being used for diverse range of applications such as fumigation of foodgrains, grapes & tobacco, drying of spices, rubber and coconut, pre & post-harvest covering of produce, morel covers, dunnage sheet underlays, creating vermiculture compost pits, rain-water harvesting, fish farming, drinking water storage, and even for making greenhouses, poly-houses and low height tunnels.

Silpaulin makes a dependable and cost-effective substitute wherever cold storage facilities are not available. It adds value by not only helping to protect farm produce, but also enabling it to retain its freshness for a longer period.

Silpaulin is likewise being used for covering machinery and equipment, building privacy walls, camping tents, as construction site covers and scaffolding, covering raw bricks, cement, garden and other furniture, and for lumber and shipping bags.

Sustainability & Environment Care

Supreme XF Division has always upheld the highest values of sustainability and environment care in all spheres of its operations. Silpaulin film is made from recyclable material. The manufacturing plants follow all norms of sustainable practices.

Silpaulin itself is a tool for environment care as it is used as pond and canal lining.

It is also ideal for Rainwater Harvesting.

The plants at Halol, Getmuvala and Silvassa have implemented eco-friendly practices ensuring an efficient energy management as well as judicious use of water.

THE PRODUCT TECHNOLOGY

The technology is really a new recombination of film processing technologies that are well established and have been reported in technical journals over the past 30-35 years. The result is an innovative film that offers end-users some unique benefits.

The film is made with conventional blow film, three layer A-B-C coextrusion technology. The choice of resins and the thickness of each coextrusion layer is dependent upon the specific end user performance requirements. Various additives such as ultra-violet inhibitors (UVI), film colors are incorporated into the resin structures as in conventional films. As in any blown film, the molecular orientation is in the machine direction. The film bubble is collapsed and wound into a roll.

The roll of film is then placed on a second machine that opens the film tube and pulls the film over a mandrel where the film tube is cut at angle to create a flat web. The molecular orientation of this web is from 300 to 600 from the machine direction of the web. The flat film is rewound into a roll.

Two to eight of these flat film rolls with the molecular orientation at opposite angles in alternate webs, are laminated together using relatively low heat and pressure, resulting in the webs being cross-laminated with respect to the molecular orientation. The web is then biaxially oriented using traditional roller technology to accomplish the machine direction orientation. A patented grooved roller system accomplishes the transverse or cross-machine direction orientation.

Multiple webs can be laminated together with the molecular orientation of each web alternating for a cross-molecular orientation of the laminate film. Film web widths are available up to 9 feet.

POWERFUL ATTRIBUTES OF XF FILM

- ❖ Larger Area Coverage.
- ❖ As per IS 14611-2016 standards.
- ❖ 100% recyclable, hence eco friendly.
- ❖ Heat sealed joints guarantee NO leakage.
- ❖ Customized to suit diverse industry needs.
- ❖ Light weight, Easy to handle, transport and use.
- ❖ Unmatched strength, Offers the assurance of 100% waterproofing.
- ❖ All-weatherproof, with the ability to withstand tough climatic extremes.
- ❖ Exported a single piece sheet, to cover an entire football field, to Europe !
- ❖ Especially UV treated to resist radiation, and inert to most chemicals and acids.
- ❖ High elongation and flexibility enable it to be draped over odd shaped objects.
- ❖ Supplied tailor-made integrated machine covers ranging up to 70 feet in length.
- ❖ Excellent tensile strength. Tear and puncture resistance - can withstand the impact of sharp edges and blunt objects.
- ❖ Supplied in customized sizes, thickness and colors. Films up to 300 GSM thickness and up to 9 feet in seamless width can be ordered.

AVAILABILITY OF XF FILM :

Thickness : Films made in 30, 35, 45, 70, 90, 100, 120, 150, 200, 250 and 300 GSM.

Sizes : Film made in 4ft to 9ft width can be fabricated to a custom made size as per customer's requirement (Exported cover for football field in 1 piece to Europe).

Colors : Any color, our standard colors are Blue / Yellow 2 side color film made in 150 & 200 GSM.

COMPARATIVE STATEMENT OF MULTILAYERED CROSS LAMINATED U.V. STABILISED SILPAULIN BRAND FILM WITH OTHER PLASTIC COVERING.

SR. NO.:	SILPAULIN	OTHER PLASTIC COVERING
01	As per IS:14611:2016	As per IS:7903
02	Silpaulin Brand Multilayered cross Laminated U.V. Stabilised Plastic Tarpaulin have desired mechanical properties like Tear. Tensile, Impact strength and 100% waterproofing properties in the basic material itself.	These Coverings are not waterproof as the functional life of this product depends directly on the secondary agent which is laminated on it to make it waterproof.
03	Swiss Technology.	Not known.
04	Silpaulin is properly U.V. Stabilised to enhance the exposed life, as a result it remains flexible and lasts for a much longer period.	As the laminated agent being very thin it is not efficiently U.V. Stabilized and gets degraded faster.
05	Fusion Welding is done by Automatic Sealing Machine on Silpaulin to have more stronger joints.	Normally, this is not available with heat sealed joints and even when it is, the joints are not strong and hence it tends to come off after a little while. The sealing is done on the thin laminated film and not on the entire thickness. Hence, the sealing is weak and tends to open at the seal. It also comes with stitched joints and water tends to leak through such joints.
06	After use it can easily be folded and stored. The handling is also easy in view of its light weight.	After initial exposure under the sun it tends to crack and ultimately result in delamination when folded for storage purpose.
07	The thickness is indicated in GSM (Gram Per Square Meter) and the maximum variation is $\pm 10\%$.	The variation goes up to $\pm 20\%$.
08	Silpaulin comes with ultrasonically plastic welded eyelets which forms integral part of the Tarpaulin itself.	Normally, this product comes with riveted eyelets which peels off after a specific pressure is applied.
09	100% Waterproof forever.	May be waterproof, but for a very short period.

- ❖ Azolla Farming Sheets
- ❖ Portable Garden Beds
- ❖ Plant Protection Sheets
- ❖ Fruit Ripening Chambers
- ❖ Poultry Curtains And Roofs
- ❖ Silage Urea Enrichment Bags
- ❖ Portable Vermi Compost Beds
- ❖ Floor Underlays (Dunnage Sheets)
- ❖ Green House / Low Tunnels / Nursery Sheds / Aprons
- ❖ Portable Silpaulin Plant Nutrition Bed (Hydro Phonics)
- ❖ Covering Of Agricultural Produce (Pre & Post) Harvest Sheets
- ❖ Covering Of Tendu Leaves, Tamarind, And Other Forest / Hill Produce
- ❖ Fumigation Of Tobacco Leaves Food Grains, Grapes And Other Agricultural Produce
- ❖ Dying Of Spices, Areca Nuts, Coconut, Rubber, Chillies, Turmeric, Grapes (Rasin) And Other Agricultural Produce
- ❖ Farm Ponds / Pond Lining / Fresh Water Ponds / Fish Ponds / Raw Water Reservoirs / Jalkundh / Community Water Tank / Portable Water Tank / Diggi / Canal Lining Etc

CONSTRUCTION & CIVIL ENGINEERING APPLICATIONS

- ❖ As Raft Underlay
- ❖ As Floor Underlay
- ❖ Terrace Graden Underlay
- ❖ As Parking Floor Underlay
- ❖ As Column Footing Underlay
- ❖ Basement Capping / Swimming Pool Capping
- ❖ SLIP-MEMBRANE For Concrete Roads And Runways
- ❖ Lining For Large Water Bodies / Raw Water Reservoirs / Ponds
- ❖ Side Curtain For Retaining Walls, Terrace / Podium Waterproofing, Lining For ETP's / Waste Pits / Sludge Ponds Etc.

PACKAGING APPLICATIONS

- ❖ Machine Covers
- ❖ Flexi Container Liners
- ❖ Shipping Bags & Drum Liners
- ❖ Industrial Transport Packaging
- ❖ Packing & Covering Of Industrial Products
- ❖ Jumbo Bags For Storing Of Industrial Raw Material
- ❖ Packing Of Heavy Project / ODC (Over Dimension Cargo)
- ❖ Packing Of Export Consignment, Inner Liner For Corrugated Boxes

ADVANTAGES

- ❖ Silpaulin packing gives an aesthetic look to the product packed.
- ❖ Silpaulin films are moisture resistant and protects products from corrosion.
- ❖ Silpaulin packing is widely used by industries for oversize jobs / odd sizes products which are shipped overseas.
- ❖ Silpaulin can withstand the pressure of wire ropes and other impacts during transportation or while loading & unloading during the shipment, thus providing protection against wear and tear caused due to environment.

SHIPPING BAGS

Supreme Industries also produces shipping bags called “Silsacks” - The sure, safe and reliable option for Industrial Packing.

Silsacks are made from XF Film. With a production strength of millions of high strength sacks every year, we cater to the needs of several packing needs like Plastic Granules, Confectionery, Fire Chemicals, Detergents, Animal feed, Chemicals, Feed Supplements, Cement Paints, Wax etc.

Silsacks are heat sealed & supplied with Flexographic printing of up to 2 colors on both sides. These bags are special packing bags and very competitive vis-a-vis heavy duty LDPE bags. UN approval can be given on request.

The sacks are made in 70, 90, 120 & 150 GSM recommended for packing products up to 25 Kgs.

Types of bags manufactured :

- 1) Valve type Bags.
- 2) Open Mouth pillow type Bags.
- 3) Flat Bottom Open Mouth Bags.



DRUM LINERS

XF Film is used as Drum Liner for packing grease, Paint, Chemicals etc. The drums used are open mouth, having capacity of 55 lb and 440 lb.

Unique Features :

- 1) Puncture Resistant.
- 2) Light Weight - easy to handle & install.
- 3) Economical - saves time & labour - no drum clean-ups.
- 4) Stop external surface contamination of the product.
- 5) Entire quantity of the product packed can be taken out of the drum without wastage.



GENERAL APPLICATIONS

- ❖ Hanger Covers
- ❖ Privacy Walls, Camping Tents
- ❖ Protection For Transit Material
- ❖ Scaffolding At Construction Sites Etc...
- ❖ Covering Of Raw Bricks, Cement Etc...
- ❖ Truck / Tempo / Tractor Trolley Cover / Sheet
- ❖ Covering For Pandals, Monsoon Shed, Mandaps Etc...
- ❖ Shed Covers Offering Protection Against Sun / Rain / Dew / Dust
- ❖ Shelter For Poor People / Temporary Shelter For Hawkers, Fruits / Vegetable Vendors
- ❖ Covering Machinery, Raw Materials, Packing Materials, Finished Products, And Paper Cartons



Export Tarps are packed in Poly Bags & supplied with 2/4 color insert with a 'Feel Me' Tag. Lumber Bags are also fabricated from XF Film made from 90 GSM Films, duly printed with up to 2 colors.

GARDEN FURNITURE COVERS :

One of the unique application of XF Film is Garden Furniture Cover which is extensively used in European countries. These films are used for covering furniture which is kept outdoors, to avoid accumulation of dust, water, dew etc.

Garden Furniture Covers are made from our 90 GSM Films in Natural, Taupe, Silver Grey & Black colors & 120 GSM Films in Green color and fabricated exactly as per the needs for various Furniture Size.

The covers are heat sealed and hence 100% dust proof and water proof. The various covers fabricated are Stacking Chair, Hammock 2 & 3 Seater, Cushion bags, Garden Bench, Wheeled Lounger, Table Cover, Patio Oval Table, Parasols etc.

DRY & BULK CONTAINER LINER :

The Liners are made for 20' & 40' Container as per the requirements of the customers, with top or front inlet-in 90 & 120 GSM film.



EXPORT MARKET APPLICATIONS

Since 1942
Supreme[®]
People who know plastics best

- ❖ Pallet Covers
- ❖ Morell Covers
- ❖ Lumber Covers
- ❖ Barbeque Covers
- ❖ Lawn Mower Covers
- ❖ Radon Gas Barrier Film
- ❖ Tarp for covering boats
- ❖ Garden Furniture Covers
- ❖ Water Lining Applications
- ❖ Constructions & General Applications
- ❖ Shipping Bags for Packing up to 25 KGS
- ❖ Shingle & Sidling covers for covering asphalt

Cusion Bag Cover



Sun Lounger



Kettel Bbq Cover



Car Cover



Furniture Cover



Furniture Cover



Wooden Cover

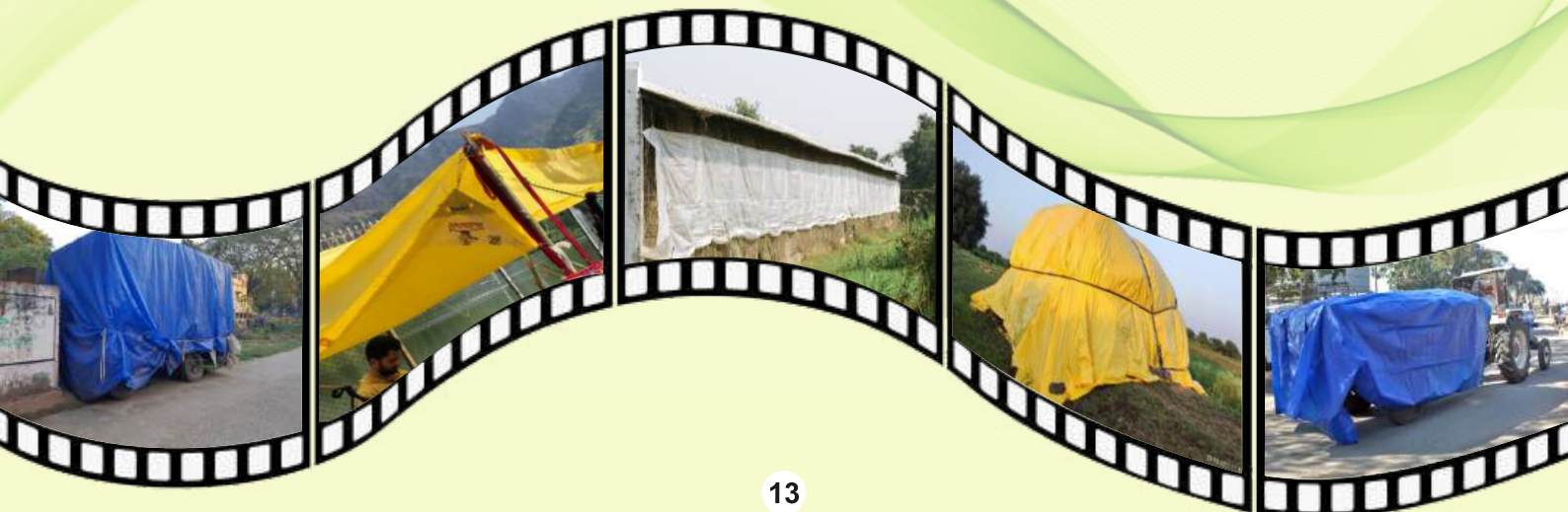




PRODUCT APPLICATION



PICTURE GALLERY



RAIN WATER HARVESTING

Since 1942
Supreme[®]
People who know plastics best



PORTABLE VERMIBEDS

Since 1942
Supreme[®]
People who know plastics best



UNIVERSAL SIZE CAR COVERS

Since 1942
Supreme[®]
People who know plastics best



TWO WHEELER / AUTO / E-RICKSHAW COVERS

Since 1942
Supreme[®]
People who know plastics best







JUNIOR PONCHO

Since 1942
Supreme[®]
People who know plastics best



UNIVERSAL SIZE / UNISEX

Since 1942
Supreme[®]
People who know plastics best

Feel the rain with
our Rain Poncho



MULTICOLOUR



**SOME PEOPLE FEEL THE RAIN,
OTHERS JUST GET WET !**



**NEW
LAUNCH**



LONG COAT RAINWEAR FREE SIZE (UNISEX)

Since 1942
Supreme[®]
People who know plastics best

COLOUR

Natural Blue Yellow Brown Sky Blue Dark Blue Olive Green Silver Purple



**NEW
LAUNCH**



3-IN-1 RAIN PONCHO

Since 1942
Supreme[®]
People who know plastics best

Colour

Orange White Olive Green

**3-in-1
RAIN
PONCHO**

Universal Size



Rain Poncho



Floor Mat



Multi Colour



Tarp

PRE - POST HARVEST SHEETS

Since 1942
Supreme[®]
People who know plastics best



AZOLLA BEDS

Since 1942
Supreme[®]
People who know plastics best



POULTRY CURTAINS / ROOFS

Since 1942
Supreme[®]
People who know plastics best









PORTABLE FRUIT RIPENING CHAMBERS

Since 1942
Supreme[®]
People who know plastics best



PLANT PROTECTION SHEETS



NURSERY SHEDS / LOW TUNNELS

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GENERAL APPLICATIONS

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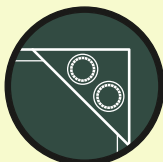


TECHNICAL VALUES OF MULTILAYERED CROSS LAMINATED XF FILM (AS PER IS:14611:2016 STANDARD)

	Characteristics	Requirement for					Method of test, Ref to IS/Annex
		XLN Extra Light	LN Light	MN Medium	HN Heavy	XHN Extra Heavy	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	Mass per Unit Area,g/m2	35 55 60	70 to 100	120 to 150	200 to 250	300	7016 (Part 1)
ii)	Tensile Strength, Min, Kg/cm2						
	a) Longitudinal Direction	250	250	250	250	250	IS 13360 (Part 5/ Sec 1) and IS 13360 (Part 5 / Sec 3)
							Test Conditions- Specimen Type 2 and test speed 500 mm/min
	b) Transverse Direction	200	200	200	200	200	-do-
	After ageing at (70+ 1)°C for 168h, Min, Kg/cm2						
	a) Longitudinal Direction	30 percent Decrease from the original					-do-
	b) Transverse Direction	-do-					-do-
iii)	Elongation at break, Min, percent						
	a) Longitudinal Direction	300	400	400	400	400	-do-
	b) Transverse Direction	250	300	300	300	300	-do-
iv)	Tear Strength, Min, g						
	a) Longitudinal Direction	650	1200	2080	3200	4000	F
	b) Transverse Direction	450	900	1600	2800	3500	-do-
	After ageing at (70+ 1)°C for 168h, Min, Kg/cm2						
	a) Longitudinal Direction	30 percent Decrease from the original					-do-
	b) Transverse Direction	-do-					-do-
v)	Dart Impact Strength, Min,g	100	250	400	700	800	Method B of IS 13360 (Part 5 / Sec 6)
vi)	Average Tensile Strength and Elongation at Break after exposing to UV radiation and weathering, Min, (kgf)	50 percent of the Original Strength					G
See Annexure "E" for calculation of average thickness and tensile strength.							

THE ABOVE VALUES MAY VARY AS PER ACTUAL GSM OF THE SAMPLE
THE ABOVE VALUES ARE FOR SINGLE COLOUR FILM
IS-14611-2016 MARKED PRODUCTS AVAILABLE ON REQUEST

Note: Subject to change without notice, all information given in good faith without any guarantee of any nature.



Lives we touch, smiles we spread

At Supreme, we have always taken great pride in the lives we change, especially for less privileged sections of our society. An integral part of growing responsibly is our comprehensive Corporate Social Responsibility measures that cover all key focus areas.

These efforts include Rural Health Improvement initiatives, Public Sanitation, Clean Drinking Water, Empowerment of Women, Education, Skill Development and more. We also align our social care efforts with Government of India's constructive initiatives such as Swachh Bharat Abhiyan that aims to make India open defecation - free.

Towards a focused and effective implementation of our CSR projects, the Group has established Supreme Foundation. The Foundation has undertaken major projects such as education and healthcare for children. Supreme Foundation is providing volunteer teachers in primary/secondary schools in nine districts in Rajasthan and also lecturers in Sanskrit colleges in the entire state. Further, it has also undertaken similar activities of providing teachers in primary & secondary schools of Ladnu Tehsil of Nagaur District and Sujangarh Tehsil in Churu district of Rajasthan.

All these initiatives have been undertaken with the active support of the education department of Government of Rajasthan. The necessary agreements have been entered into for a period of five years. Rajasthan Government has extended its appreciation of Supreme Foundation's Free Medicine Scheme named 'Chikitsa Aapke Dwar', which was launched in the state during the COVID-19 period.

The Foundation also mobilized 'Volunteer Teachers' to support vaccination program of the Rajasthan Government. Volunteers were also appointed to organize classes to educate children at community levels near the homes of the students during the third wave of corona epidemic.

Supreme Foundation has also been building and maintaining clean public toilet facilities at multiple locations in Jalgaon.

At Supreme, we take great pride when such meaningful activities translate into smiles of empowerment and better living.

