RUDRA ECOVATION

CATALOGUE 2024

FIBRE DIVISION

About Rudra Ecovation

Established in 1997, Rudra Ecovation (formerly Shiva Tex Fab) has been steadfast in its commitment to sustainability, emerging as a leader in PET waste recycling. Situated in Ludhiana, Punjab, our expansive 100-acre facility stands as Asia's foremost integrated manufacturing unit for rPET waste recycling. Over the course of our illustrious 26-year journey, we've not only achieved the remarkable feat of reducing global CO2 emissions by over 140,000 metric tons annually but have also become synonymous with innovative environmental solutions.

Operating at the intersection of technology and eco-consciousness, our facility utilizes a meticulous application of material sciences to process an impressive 350 metric tons of PET waste daily. This results in the transformation of plastic bottles into a versatile array of soft, breathable, and skin-friendly end products named Anaura, seamlessly integrating sustainability into every fiber. Our business model facilitates sustainability and supports the circular economy by manufacturing high-quality, mass-usage innovative sustainable products like Anaura, as well as intricate carpets, technical textiles, filament yarn, spun yarn, fiber, acoustic panels, and more. The backbone of our operations lies in the precision and sophistication of our machinery, sourced from renowned manufacturers in Switzerland (Rieter), Italy (Savio), and Germany (Schaeffler). Our initiatives consistently adhere to the gold standard of ESG (Environment, Social, & Governance) Principles.

Product Offerings

Rudra Ecovation serves as a cornerstone in the clearance and recycling of significant volumes of plastic bottles on a daily basis, leading to the creation of a diverse range of aesthetically pleasing, durable, and premium-quality products.

Our product offerings extend from our subsidiary Anaura to carpets, fibers, technical textiles, filament yarn, spun yarn, and beyond, showcasing our commitment to innovation and sustainability.

Continuing our dedication, we are actively establishing facilities for bottle-to-bottle chips production and delving into the manufacturing of acoustic panels. These initiatives underscore our unwavering commitment to innovation and sustainability, further solidifying our position as industry leaders in responsible environmental practices.

Introducing Rudra Ecovation's Fibre Divison

Rudra Ecovation stands as a distinguished industrial group with a strong presence in the textile industry, particularly excelling in 100% Recycled Fiber, Spinning, Knitting, Weaving, and Dyeing processes.

At Rudra Ecovation, our commitment lies in delivering superior quality fibers at competitive prices, achieved through a dedicated focus on research and development. We meticulously control fiber structure and ensure impeccable finishing to meet the diverse needs of the textile industry with Rudra Ecovation Fiber.

Our 100% Polyester Staple Fibers are widely recognized for their dimensional stability, low shrinkage, and exceptional resilience, offering optimal performance across various applications.

Distinctive Attributes of Rudra Ecovation

Rudra Ecovation stands out in the industry for several reasons:

- **Exclusive Licensing:** Rudra Ecovation holds a prestigious license for importing PET bottles from international markets, being one of the three licensees in India with this privilege.
- **Finest Fiber Production:** As the largest manufacturer of recycled polyester fiber in the Punjab region, Rudra Ecovation offers an extensive range of polyester fibers tailored to meet diverse requirements, ensuring the highest standards of quality and versatility.
- Fibres manufacturing facilities hold certifications including ISO 9001, GRS, and BIS (IS-17263:2022), underscoring our dedication to quality and sustainability standards.

State-of-the-Art Machinery for Unparalleled Quality

At Rudra Ecovation, we utilize highly automated machinery to uphold world-class quality standards across all our manufacturing processes.

Special Features of Rudra Polyester Staple Fibre

Rudra Polyester Staple Fibre, whether in its natural grey state or dyed, is distinguished by its exceptional qualities:

- **Recycled Material:** Crafted entirely from 100% recycled PET, reflecting our commitment to sustainability.
- **Non-Siliconized Pattern:** Designed without siliconization for optimal performance in a wide range of applications.
- **Hollow or Solid Cross Sections:** Available in both hollow and solid cross sections, providing versatile options to suit various manufacturing requirements.
- **Grade:** Upholding superior recycled quality standards, ensuring reliability and consistency in performance.
- **Packaging Detail:** Each batch is securely packed in PP woven bags with tightened straps, ensuring safe transportation and storage.
- Also available with Fire retardant and antimicrobial properties , providing enhanced safety and protection.

Superior Polyester Staple Fibre for Spinning

Engineered with cutting-edge technology, Rudra Ecovation's fibers are meticulously crafted to meet the exacting demands of specialty yarns for spinning processes. Key specifications include:

- **Exceptional Tenacity and Elongation:** Ensuring durability and flexibility in various applications.
- **Uniform Denier:** Consistency in fiber thickness for uniformity in yarn production.
- **Low Shrinkage:** Maintaining dimensional stability and preventing distortion during processing and use.
- **Superior Yarn CSP (Count Strength Product):** Guaranteeing high strength and durability in the final yarn product.
- **Excellent Wet Strength:** Retaining strength and integrity even when exposed to moisture, ensuring reliability in diverse conditions

Additionally, a range of varieties, such as Trilobal Fibre for embroidery applications, are available to cater to a wide array of end-user requirements, further demonstrating our commitment to versatility and quality.

Recycled Polyester Staple Fibre for Non-Woven Applications

Rudra Ecovation's recycled polyester staple fibers for needle punching in non-woven applications are carefully engineered to meet rigorous industry specifications. Key features include:

- **Optimized Tensile Strength:** Ensuring strong and reliable performance in various applications.
- **Enhanced Crimp and Luster:** Providing improved texture and appearance for enhanced aesthetics.
- **Specialty Fibers Available:**
  - **UV Fiber:** Offering protection from harmful UV radiation, ideal for outdoor applications.
  - **Insert Fiber:** Providing resistance to acids and alkalis in ambient conditions, suitable for a wide range of environments.

These fibers are utilized across diverse sectors such as construction, automotive, roofing, insulation, upholstery, Geo Textile and more, showcasing their versatility and adaptability to various industrial needs.

Recycled Polyester Staple Fibre Product Range

	END USE	DENIER TYPE	CUT LENGTH(mm)	CROSS SECTION	SPECIAL FEATURES
SPINNING	Yarn for Knitting Fabric	1.2 D To 6.0 D	32/38/44/51/64/76	Circular solid	Good Tenacity
	Yarn for Weaving fabric	1.5 D—6.0 D	32/38/44/51/64/76		Controlled Elongation & Shrinkage
			44/51/64/76/102		Excellent Dye Pick up
			51/64/76/102		

	END USE	DENIER TYPE	CUT LENGTH(mm)	CROSS SECTION	SPECIAL FEATURES
NON WOVEN	Geotextiles	3.0 D	44/51/64/76/102	Circular solid	High Strength
	Filtartion	6.0 D	64/76/102		High Moduls
	Upholstery uppers	15.0 D	64/76/102		Stability with high temperature
	Autotextiles				Abrasion Resistance

Applications of Rudra Ecovation Products

Rudra Ecovation's fibers cater to a broad spectrum of applications, including but not limited to:

- Spinning
- Furniture
- Upholstery
- Consumer Goods
- Auto Textiles
- Geo Textiles
- Personal Care
- Household Products

These versatile fibers are designed to meet the diverse needs of various industries, ensuring high performance and reliability across different applications.

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BUREAU OF INDIAN STANDARDS

Global Recycled Standard

OCEAN BOUND PLASTIC CERTIFIED

CERTIFIED ISO 9001:2015 COMPANY

International Organization for Standardization ISO 14001:2015

CERTIFIED ISO 45001:2018 ORGANIZATION