SURYA
RUBBER
INDUSTRIES
King of the Road

RESHAPING THE FUTURE OF TRANSPORTATION


INTRODUCING WIDE RANGE OF
TREAD
Designs
APPLICATION FOR TYRES
TRUCK/BUS | MHCV'S | LCV'S | AUTO
AGRICULTURE | OFF ROAD MINING VEHICLE
SURYA
RUBBER
INDUSTRIES

RESHAPING THE FUTURE OF TRANSPORTATION

Surya Rubber Industries was established in 1984 by the late Shri Narendra Kumar Mittal and is now led by Mr. Bharat Mittal as the Managing Director. With a state-of-the-art plant located in Shamli, Uttar Pradesh, India, the company is engaged in the manufacturing of precured tread rubber, unconventional hot rubber, unvulcanized rubber strip gum, cement compound, and specialised rubber compounds.

In addition to these core activities, the company also operates in other verticals, including construction, plastic recycling, and metal trading. Surya Rubber Industries has supplied its products to various state governments, such as Rajasthan Roadways, Delhi Transport Corporation (DTC), and Uttar Pradesh State Roadways Transport Corporation (UPSRTC), as well as retreaders across more than 20 states in India. Furthermore, the company has a global presence in over 10 countries, including East Africa, UAE, Nepal, Bhutan, Bangladesh, and Sri Lanka, as it strives to distribute its products and services worldwide.

Our primary objective is to assist clients in reducing the cost of purchasing new tyres by providing them with retreads that offer a lower cost per kilometer (CPKM) while ensuring performance comparable to new tyres. We offer comprehensive transport solutions to the commercial transport vehicle market.

INTRODUCING OUR MANAGING DIRECTOR: THE INNOVATOR

Our Director, Bharat Mittal, was born in 1989 in Shamli and received primary schooling there. He pursued higher education at the Indian Institute of Learning and Management (IILM Delhi). With the blessings and vision bestowed upon him by his late father, Shri Narendra Kumar Mittal, he embarked on his entrepreneurial journey at the age of 19.

He has a deep passion for travel and living life to the fullest and firmly believes that anything can be achieved with dedication and a strong sense of purpose. Guided by the motto of B-U-S (Building Trust with Passion, Uncompromised Quality, Safer and Greener Environment), he strives to understand the needs of customers and offers them economical alternatives in the form of retread tyres.

His ultimate goal is to create awareness about the reliability and safety of retreading as a cost-effective alternative to purchasing new tyres.
Teamwork lies at the heart of Bharat's business philosophy, which is why he places great emphasis on rigorous training for employees. He recognizes that the success of the company depends on adopting technological advancements. He holds on to lifelong learning and, with the support of his family, friends, and colleagues, continues to contribute to the global economy.

PRODUCTS RANGE

PRECURED TREAD RUBBER

Precured tread rubber, also known as PTR, is a vulcanized rubber belt that is manufactured by combining natural rubber, synthetic rubber, oil, and rubber chemicals. It is then molded and cured in a specific design pattern, with defined specifications for width, thickness, and weight.

Our treads are meticulously crafted to cater to various road applications, including short-haul, long-haul, off-road, mountainous, and hilly terrains, as well as a mix of well-paved or unpaved roads.

Customers have the advantage of choosing from our extensive portfolio of over 50+ patterns available in 200+ sizes.

Advantages of our
PRECURED TREAD RUBBER

- *SUPERIOR LOW-ROLLING RESISTANCE COMPOUNDS*
- *LIGHT TREAD WEIGHTS*
- *TESTED IN ALL CONCEIVABLE CLIMATE COMPOUNDS*
- *PERFORM AS GOOD AS NEW TYRE*
- *RANGE FROM AUTO TO OFF-ROAD MINES TRUCK PATTERN*
- *UNBEATABLE QUALITY AND UNMATCHED VALUE*

UNVULCANISED RUBBER STRIP GUM

Unvulcanised Rubber Strip Gum (URSG) or Cushion/Bonding gum serves as a vital element in the efficient production of retread Tyres. It acts as a thin adhesive sheet, placed between the vulcanised tread and the tyre casing, ensuring a secure bond.

This gum is also utilized for repairing inner line damage. In the manufacturing of retread tyres, it plays a crucial role by facilitating strong bonding and high green tack between the precured tread rubber and the tyre casing. Any compromise in the quality of URSG can result in separation, ultimately leading to tyre failure.

Advantages of our
URSG/BONDIGUM/CUSHION GUM

- *EXCELLENT TACKINESS*
- *HIGH SCORCH SAFETY*
- *GOOD TENSILE STRENGTH*
- *SUPERIOR ELONGATION PROPERTIES*
- *HIGH ADHESIVE STRENGTH*
- *LONGER SHELF LIFE*

Our URSG is offered in three variants based on demand and specifications:

1. **POWERBOOSTER-99 DEGREE**
2. **POWERBOOSTER-125 DEGREE**
3. **POWERBOOSTER-150 DEGREE**

UNCONVENTIONAL HOT RUBBER OR CAMEL BACK TREAD

Camel Back Tread is an innovative uncured rubber layer with cushion gum that offers numerous benefits such as low heat buildup, shorter curing time, and energy savings. Nowadays cold retreading has replaced the major world market of the unconventional system of hot rubber, where now majorly hot rubber is used in manufacturing retreading Tractor Rear tyres and OTR tyres. With the ability to renew side walls and retain regroovability, hot retreading provides excellent results. At SURYA Rubber, we specialize in producing high-quality camel back treads tailored to specific customer requirements under the brand name '**SRI**'. It is recommended to use hot rubber within 90-120 days for optimal performance.

BLACK VULCANISING CEMENT COMPOUND (BVC)

Black vulcanising cement compound is capable of dissolving in a solvent when mixed. Once combined with a solvent, it is applied on the tyre surface above, serving its primary purpose of protecting against oxidation to prevent premature tyre failure. This results in the creation of a strong bond between the surface and the compound. These compounds are suitable for temperatures ranging from 99° to 150°.

Surya Rubber Industries manufactures Black Vulcanizing cement compounds in sheet form. These sheets are convenient for export and for providing excellent performance.

RUBBER COMPOUNDS

Surya Rubber Industries offers a wide range of high-quality products tailored to your specifications. With state-of-the-art equipment and advanced mixing technology, we are dedicated to providing excellent black rubber compounds to various industries.

Whether it's tyre manufacturing, automotive, conveyor belts, rubber moulding, or sports goods, our products are suitable for diverse applications. Additionally, we also offer masterbatches and ensure all compounds undergo rigorous testing for superior quality.

Advantages of Using Our Rubber Compounds:

- A dedicated team is assigned to ensure all your understanding and deliver the cost-saving compounds.
- Savings on equipment investment.
- Environmental friendly, reducing carbon pollution.
- Consistent quality assured with laboratory-tested batches by skilled technologists.
- Rigorous quality checks at every stage, from raw materials to weight management.

WHAT IS RETREADING

Retreading involves rejuvenating old tyres, and extending their lifespan. This process begins by removing the worn-out tyre casing with good structural integrity. As the tyre continues to roll, the tread gradually becomes perishable, grinds, or wears out.

This casing undergoes a comprehensive renewal, receiving fresh tread and sidewall rubber. Next, the revitalized tyre proceeds to a curing process where the new rubber bonds with the original casing, forming a brand-new tread pattern.

BENEFITS OF TYRE RETREADING

- SAFE AND RELIABLE AS NEW TYRE
- ENVIRONMENT FRIENDLY
- RETREADING MEANS COST SAVINGS
- MOST TRUSTED & ECONOMICAL ALTERNATIVE TO NEW TYRES
- GIVING YOUR TYRE A NEW LIFE
- REDUCES LANDFILLS OF USED CASINGS


STEP 1
FIRST INSPECTION
BUFFING AND CEMENTING
STEP 2
STEP 3
REPAIRING AND SKIVING
CONSTRUCTION
STEP 4
STEP 5
CURING
FINAL INSPECTION
STEP 6
6
STEP OF
RETREADING
PROCESS

1 FIRST INSPECTION

The initial step in the retreading process is to inspect the tyre, ensuring it meets our stringent quality standards. To identify punctures, ruptured cords, separations, or any other minor flaws, a visual and tactile examination of the casing is carried out during the inspection. Casing that fails the inspection is deemed unacceptable and cannot undergo retreading.

2 BUFFING AND CEMENTING

The casing crown becomes a uniform surface during the buffing process, allowing the installation of the new tread on top of the casing using high-speed rotating rasps and brushes. The buffing process removes the remaining tread and sidewall rubber from the casing to the exact precise dimensions. While curing, it aids in precise adhesion of fresh tread to tyre.

After buffing, the area is covered with rubber solvent, (universal spray cement), which lessens surface oxidation (surface oxidation reduces the surface tack of the casing, which results in less bonding of the tread and casing, resulting in early tyre failure).

3 REPAIRING AND SKIVING

It is crucial to fix cuts and damages because failing to do so could result in the tyre's full failure to cure after buffing. Skiving is a process of removing damaged or loose parts from the casing (injuries or damages caused by inadequate maintenance or abuse of the tyre on the road).

In order to rebuild the casings intrinsic strength, the cuts and damages are fixed by adding repair gum to the damaged skived area where the holes are huge or a specialised patch to that location from where the piles are damaged.

4 CONSTRUCTION

The final and crucial step in tyre construction involves the selection of pre-cured tread rubber belts from Surya Rubber Industries, tailored to match tyre sizes and appropriate tread patterns.

A thin sheet of bondigum is meticulously wrapped around the buffed tyre casing to serve as a bonding agent, firmly connecting the buffed area and tread. Once wrapped, the tread is precisely positioned on the end of the bondigum-coated buffed tyre, ensuring an airtight seal between the tread and bondigum. Lastly, the tread undergoes a meticulous rolling process with the aid of a roller, ensuring a flawless finish.

5 CURING

During curing process, the "built" tyre is enveloped in a flexible rubber casing, ensuring uniform pressure at all tread points and achieving a strong bond between the tread and casing. Moreover, two wicking pads are placed between the rubber envelope and the tyre to facilitate the release of any trapped moisture.

The finalized tyre undergoes the automated heat chamber of a curing press, a differential pressure of 25 PSI between chamber pressure (85 PSI) and the tube pressure (110 PSI) must be maintained for proper curing.

By properly vulcanizing the fresh rubber and curing the bondigum, the tyre is produced with the same tread pattern and depth as specified, thanks to the optimal combination of heat, time, and pressure. The methodology employed for creating new tyres remains consistent with this process.

6 FINAL INSPECTION

The cured tyres undergo a comprehensive final inspection procedure upon deflation, removal, cooling, and trimming. This process includes two meticulous inspections:

- A thorough visual and tactile inspection is conducted by a trained eye to detect any flaws in the tread pattern or sidewall.
- The second inspection involves a visual examination of the tread's adhesion to the casing before the retreaded tyre is carefully polished.

The tyre is now ready for use and performs on par with a brand-new one.

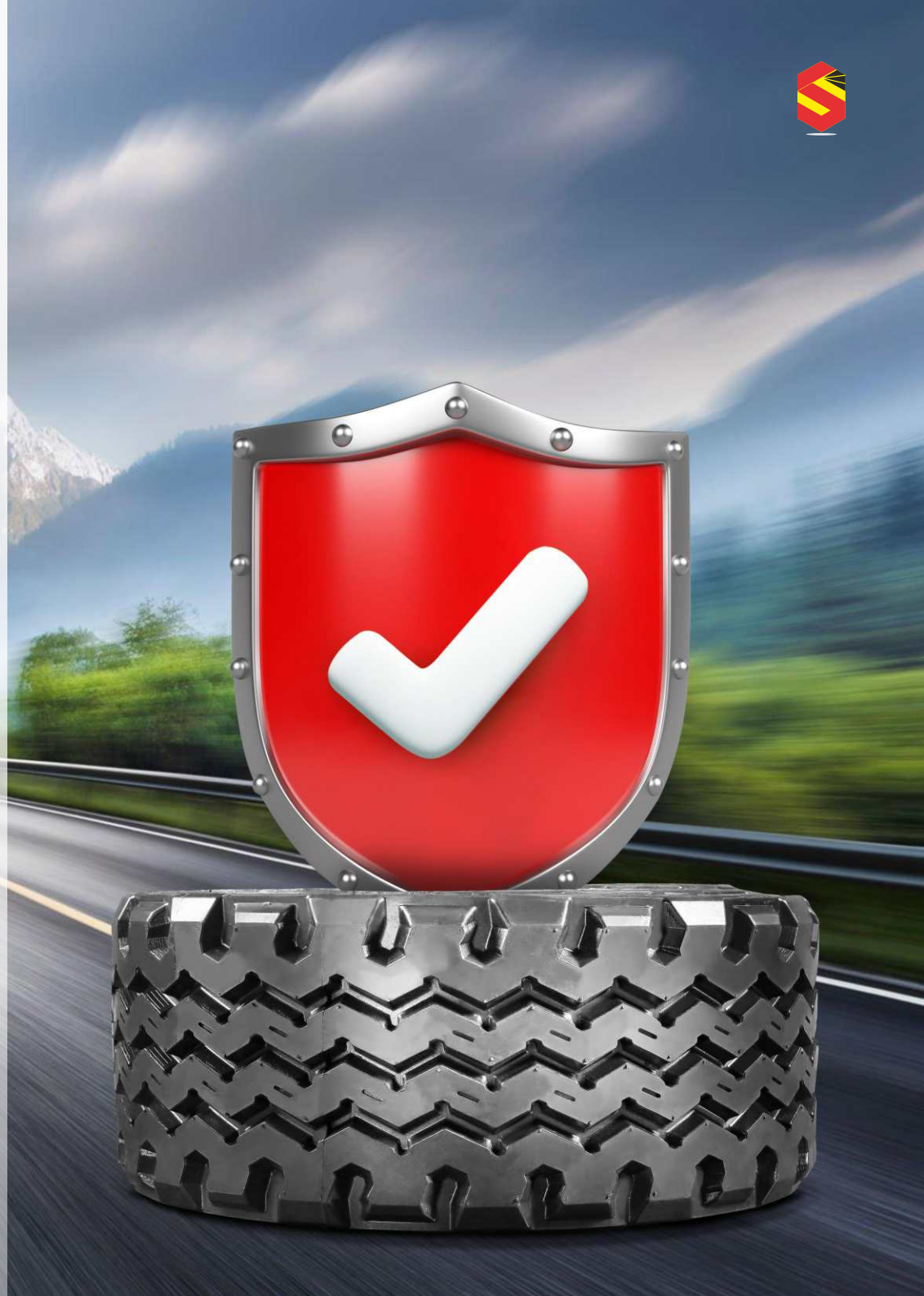
QUALITY ASSURANCE PLAN

With utmost attention to client needs, our tread offers an exceptional blend of natural rubber and chemicals. Its design is optimized to minimize running costs while maximizing mileage. For the past forty years, our unwavering mission remains unchanged – to provide unparalleled value with unbeatable quality.

To achieve this, our dedicated R&D team actively seeks new ideas, staying abreast of the latest technological advancements and utilizing high-quality materials. Addressing safety concerns is of paramount importance, and we employ skilled technicians and rubber technologists who undergo regular training to ensure their expertise in developing premium compounds that consistently yield top-notch results.

Devoted to offering low rolling resistance tread with durable tread designs and the highest quality raw materials, we hold various quality accreditations and certifications, including ZED & ISO 9001:2015 and 14000:2015. Our commitment to delivering exceptional compounds at competitive prices remains unwavering.

At every stage of the manufacturing process, our tread undergoes rigorous testing to meet the precise requirements of our esteemed clients. We employ state-of-the-art laboratory equipment, including rheometers, dispersion analyzers, muffle furnaces, universal tensile machines (UTM), abrasion testers, specific gravity testers, and more, to ensure the highest quality tread.



MANUFACTURING PROCESS

SELECTION OF RAW MATERIAL

Our researchers choose premium raw materials for compound excellence.

MIXING

We mix rubber using kneaders and Banbury machines with chemicals and oils, for precise results.

EXTRUSION

The automated Extruder ensures uniform uncured tread size, width, length, and thickness.

CURING

We mold uncured treads trips with automated hydraulic presses and pressurised steel molds for exceptional quality.

FINAL INSPECTION

Our team meticulously inspects and labels each tread before dispatch.

QUALITY INSPECTION

RAW MATERIAL INSPECTION

As a company, we meticulously inspect every raw material sample that enters our facility. Whether it is natural or synthetic rubber, chemicals, carbon, or oils, we conduct thorough physical inspections and utilize advanced lab machines such as specific gravity machines and muffle furnaces for further processing.

RAW MATERIAL STORAGE AND HANDLING

We believe that proper handling, marking, storage, and weighing of raw materials in an appropriate manner are crucial for ensuring high precision quality. Our handling is performed by skilled technical staff who undergo various training programs established by our organization for further inspection.

MIXING BATCH TESTING

Mixing serves as the crucial foundation of tread rubber, playing a vital role in the quality of the final products. Even the smallest particle can lead to irreversible effects. Therefore, each mixed batch undergoes rigorous testing using advanced equipment like a Rheometer, dispersion analyzer, lab press, and UTM before proceeding to the next step.

EXTRUSION BATCH TESTING

Our extrusion is done with highly skilled technicians with uniform tread surface, weight, length, and thickness of uncured tread.

FINAL CURED BELT TESTING

After the curing process, our final belt undergoes a thorough quality check. This includes tests for hardness, specific gravity, and abrasion resistance before proceeding to the final stage.

BUFFING INSPECTION

Our team diligently inspects each and every tread before it is sent for packing. We meticulously check for uniform buffing on the tread, leaving no room for any slipperiness.

PACKING AND DISPATCH INSPECTION

Prior to dispatch, our team ensures meticulous packaging and accurate labeling of products, including vital information such as size, pattern, weight, dom, doe, etc. Our logistics team meticulously plans and executes the dispatch process from the factory to the customer warehouse, enabling prompt and efficient delivery.

FUTURE OF RETREAD

Modern technology has bestowed us with the power of retreading - a concept that's not just feasible but highly advantageous. Imagine retreading a tire multiple times on the same casing, a breakthrough that's rewriting the rules for commercial vehicle owners. At Surya Rubber Industries, we're not just tread manufacturers, we're reshaping the future of transportation.

Retreading tyres is revolutionizing the industry, providing an efficient and sustainable alternative for commercial vehicle owners. With multiple retreading processes leveraging state-of-the-art technology, costs are reduced to 50% compared to the new tyres. We show the transportation revolution for a reliable, long-lasting, and cost-efficient solution to the world.

When you choose Surya Rubber Industries, you're not just choosing retreads – you're choosing excellence. Our specific compounds, wear and tear-free treads, are a class apart, enhancing the casing and tread life of your tyres. It's an investment that yields higher returns, giving you unparalleled mileage for your money.

WHY CHOOSE US?

OUR COMMITMENT

As a company, we meticulously inspect every raw material sample that enters our factory. This includes natural and synthetic rubber, as well as chemicals, carbon, and oils. Our inspections involve both physical assessment and laboratory analysis, utilizing specialised machines such as specific gravity machines and muffle furnaces. These thorough procedures ensure the quality and suitability of the materials for further processing.

CHANGING OF PERCEPTION FOR CHOOSING RETREADS OVER NEW TYRES

Our compound is engineered to optimise the surface traction, enhance the grip on the road, and ensure a safe and reliable ride. Our commitment to building a greener and safer environment remains paralleled.

RECOGNIZING THE NEEDS OF THE CUSTOMERS

According to the country's weather and road conditions, we have developed various types of compounds under the Panther/Falcon/Zeta brand name so that customers can get the retreads with the best retread of their choosing that have low rolling resistance compounds with higher mileage.mileage.

SUSTAINIBILITY

One of our core values is sustainability. By choosing retreading over buying new tyres, you actively contribute to reducing environmental impact by extending the life of a tyre. With our advanced retreading techniques and premium quality materials, we ensure that our retreaded tyres meet or even exceed industry standards in terms of safety, performance, and durability.

CORE VALUES

- Building Trust
- Commitment
- Creativity with Reliability
- Safer and Greener Environment
- Uncompromised Quality
- Sustainability


GET BACK ON THE ROAD WITH
THE SAFEST
RETREADING
SOLUTION


BEYOND
BOUNDARIES
CHANGING THE FUTURE
OF TRANSPORTATION
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