



SANDHYAFLEX

ISO 9001:2015 certified company

Rubber Strip and Profiles

TECHNICAL DATASHEET

SANDHYAFLEX INDIA PVT. LTD. is a leading manufacturer and supplier of high-quality Rubber Strips and Profiles designed for sealing, cushioning, vibration isolation, edge protection, and expansion joint applications across construction, infrastructure, automotive, industrial, and engineering sectors.

Sandhyaflex Rubber Strips and Profiles are manufactured from premium-grade elastomeric compounds such as EPDM, Neoprene, Natural Rubber, Nitrile Rubber, Silicone Rubber, and SBR, ensuring excellent flexibility, durability, weather resistance, and long service life. These products are available in various shapes, sizes, and cross-sections to meet diverse industrial and construction requirements.

The profiles are engineered to provide reliable sealing performance, superior compression recovery, and resistance to environmental factors, making them suitable for both indoor and outdoor applications.

Available Sizes:

<i>Thickness × Width</i>	<i>Size</i>
<i>2 mm × 5 mm</i>	<i>Rubber Strip</i>
<i>2 mm × 10 mm</i>	<i>Rubber Strip</i>
<i>3 mm × 30 mm</i>	<i>Rubber Strip</i>
<i>3 mm × 40 mm</i>	<i>Rubber Strip</i>
<i>4 mm × 40 mm</i>	<i>Rubber Strip</i>
<i>5 mm × 50 mm</i>	<i>Rubber Strip</i>
<i>6 mm × 50 mm</i>	<i>Rubber Strip</i>
<i>6 mm × 100 mm</i>	<i>Rubber Strip</i>
<i>6 mm × 150 mm</i>	<i>Rubber Strip</i>
<i>8 mm × 20 mm</i>	<i>Rubber Strip</i>

<i>8 mm × 25 mm</i>	<i>Rubber Strip</i>
<i>8 mm × 30 mm</i>	<i>Rubber Strip</i>
<i>8 mm × 50 mm</i>	<i>Rubber Strip</i>
<i>8 mm × 100 mm</i>	<i>Rubber Strip</i>
<i>8 mm × 150 mm</i>	<i>Rubber Strip</i>

Key Features:

- Excellent flexibility and elasticity.
- Superior sealing and cushioning properties.
- High resistance to weathering, ozone, and UV radiation.
- Excellent compression set recovery.
- Good abrasion and tear resistance.
- Resistant to water, moisture, and environmental exposure.
- Long service life with minimal maintenance.
- Easy installation and handling.
- Available in a wide variety of shapes and profiles.
- Suitable for indoor and outdoor applications.

Applications:

- Provides effective sealing against air, dust, water, and noise.
- Enhances durability and performance of structures and equipment.
- Accommodates movement and vibration efficiently.
- Reduces maintenance and replacement costs.
- Suitable for harsh environmental conditions.
- Customizable to project-specific requirements.
- Reliable performance under varying temperatures and weather conditions.
- Trusted solution for construction, industrial, and infrastructure applications.

Quality Standards:

S. No.	Property	Test Method	Unit	Typical Value
1	Material Type	ASTM D2000	-	EPDM / Neoprene / NBR / NR / SBR
2	Hardness	ASTM D2240	Shore A	60 ± 5
3	Tensile Strength	ASTM D412	MPa	≥ 8.0
4	Elongation at Break	ASTM D412	%	≥ 250
5	Specific Gravity	ASTM D297	g/cm ³	1.20 – 1.50
6	Compression Set (22 hrs @ 70°C)	ASTM D395	%	≤ 25
7	Tear Strength	ASTM D624	kN/m	≥ 20
8	Water Absorption (24 hrs)	ASTM D471	%	≤ 5
9	Ozone Resistance	ASTM D1149	Pass / Fail	Pass
10	Weather Resistance	ASTM G154	Pass / Fail	Pass
11	Heat Aging (70 hrs @ 100°C)	ASTM D573	% Change	Within Limits
12	Abrasion Resistance	ASTM D5963	mm ³	As Specified
13	Operating Temperature Range	Internal Standard	°C	-20°C to +120°C*
14	Electrical Resistivity (If Required)	ASTM D257	Ohm-cm	As Specified
15	Dimensional Tolerance	ASTM D3767	mm	± 0.5 to ± 1.0

Advantages of Sandhyaflex Rubber Strip and Profiles:

- Provides excellent sealing against air, dust, water, and moisture ingress.
- Accommodates movement, vibration, and thermal expansion effectively.
- Maintains flexibility and elasticity over extended service periods.
- Resistant to weathering, ozone, UV radiation, and environmental exposure.
- Reduces maintenance and replacement costs through long service life.
- Suitable for indoor as well as outdoor applications.
- Offers excellent cushioning, shock absorption, and vibration isolation.
- Available in a wide range of sizes, profiles, hardness grades, and materials.
- Easy to install, handle, cut, and customize according to project requirements.
- Trusted solution for construction, infrastructure, automotive, electrical, and industrial applications.

Sandhyaflex Rubber Strips & Profiles provide a reliable, economical, and long-lasting solution for sealing, cushioning, edge protection, vibration control, and expansion joint applications. Manufactured from premium-quality elastomeric compounds, they ensure superior durability, flexibility, and performance under varying environmental and operating conditions.

History of Rubber Strip and Profiles:

- 1940s – Early Industrial Rubber Applications: Rubber strips and sealing profiles began to be widely used in machinery, transportation equipment, and industrial installations for sealing and cushioning purposes.
- 1950s – Growth of Construction and Infrastructure: Rapid urban development increased the demand for rubber sealing products in buildings, bridges, and public infrastructure projects.
- 1960s – Expansion of Automotive Industry: The growing automotive sector drove the development of specialized rubber profiles for doors, windows, weather strips, and vibration-control components.
- 1970s – Introduction of Synthetic Elastomers: Advanced materials such as EPDM, Neoprene, and Nitrile Rubber improved weather resistance, durability, and performance in demanding environments.
- 1980s – Improved Extrusion Technology: Modern extrusion and molding processes enabled the production of complex profile shapes with greater dimensional accuracy and consistency.
- 1990s – Growth in Industrial and Commercial Applications: Rubber strips and profiles became widely used in glazing systems, HVAC installations, electrical enclosures, industrial machinery, and expansion joint systems.

- 2000s – Infrastructure and Transportation Development: Increased investment in highways, airports, metro rail systems, bridges, and commercial buildings led to higher demand for durable sealing and protection solutions.
- 2010s – Advanced Compound Formulations: Development of high-performance elastomer compounds enhanced resistance to UV radiation, ozone, chemicals, temperature variations, and environmental aging.
- 2020s – Modern Sealing and Protection Solutions: Rubber strips and profiles continue to play a vital role in construction, automotive, industrial, electrical, and infrastructure applications, providing reliable sealing, vibration isolation, cushioning, and long-term protection under diverse operating conditions.

Materials:

Sandhyaflex Rubber Strips and Profiles are manufactured from high-quality elastomeric compounds such as EPDM (Ethylene Propylene Diene Monomer), Neoprene (CR), Natural Rubber (NR), Nitrile Rubber (NBR), Silicone Rubber, and SBR (Styrene Butadiene Rubber), depending on the specific application requirements.

The rubber compounds are carefully formulated using premium-grade polymers, reinforcing fillers, processing oils, antioxidants, anti-aging agents, and curing systems to provide excellent mechanical strength, flexibility, weather resistance, and long service life.

The materials are designed to offer:

- Excellent flexibility and elasticity.
- High resistance to weathering, ozone, and UV exposure.
- Superior sealing and cushioning performance.
- Good resistance to water, moisture, and environmental conditions.
- Excellent compression recovery characteristics.
- High durability under repeated movement and vibration.
- Resistance to aging, cracking, and deformation.
- Suitable performance across a wide temperature range.
- Compatibility with civil engineering, construction, industrial, automotive, and infrastructure applications.

Typical Material Selection:

Material Type	Key Properties	Typical Applications
EPDM Rubber	Excellent weather, ozone, UV, and water resistance	Construction joints, glazing profiles, bridge seals, outdoor applications
Neoprene (CR)	Good weathering, oil, and abrasion resistance	Expansion joints, industrial seals, bridge components
Natural Rubber (NR)	High elasticity and resilience	Cushioning strips, vibration isolation applications
Nitrile Rubber (NBR)	Excellent oil and fuel resistance	Industrial sealing systems, machinery applications
Silicone Rubber	Outstanding temperature resistance and flexibility	High-temperature sealing and specialty applications
SBR Rubber	Good abrasion resistance and cost-effective performance	General-purpose strips and profiles

Quality Characteristics:

Sandhyaflex Rubber Strips and Profiles exhibit:

- High Tensile Strength
- Excellent Elongation at Break
- Superior Compression Set Resistance
- Good Tear Resistance
- Excellent Weather and Ozone Resistance
- Low Water Absorption
- Long Service Life
- Reliable Sealing Performance
- High Dimensional Accuracy

RAW MATERIALS OF RUBBER STRIPS & PROFILES ACCORDING TO SANDHYAFLEX				
S. No.	Raw Material	Image	Typical Grade / Example	Function / Purpose
1	Base Polymer (EPDM / Neoprene / NBR / Natural Rubber / SBR / Silicone Rubber)		EPDM, Neoprene (CR), NBR, Natural Rubber (NR), SBR, Silicone Rubber (VMQ)	<ul style="list-style-type: none"> • Provides elasticity, flexibility and resilience • Ensures sealing performance • Offers durability and long service life
2	Reinforcing Fillers (Carbon Black / Silica)		N330, N550, N660, N774 Precipitated Silica	<ul style="list-style-type: none"> • Improves tensile strength and modulus • Enhances abrasion resistance • Increases durability and tear strength
3	Mineral Fillers (Calcium Carbonate / Clay / Talc)		Calcium Carbonate, Clay, Talc, Mica	<ul style="list-style-type: none"> • Improves dimensional stability • Enhances stiffness and hardness • Reduces manufacturing cost
4	Plasticizers / Process Oils (Paraffinic Oil / Naphthenic Oil)		Paraffinic Oil, Naphthenic Oil, MES Oil, TDAE Oil	<ul style="list-style-type: none"> • Improves flexibility and softness • Enhances processability • Improves low temperature performance
5	Vulcanizing Agents (Sulphur / Peroxide System)		Sulphur, Organic Peroxides (DCP, BPO)	<ul style="list-style-type: none"> • Provides cross-linking (vulcanization) • Improves elasticity and strength • Enhances heat resistance
6	Accelerators (MBTS / CBS / TMTD)		MBTS, CBS (CZ), TMTD, DPTT, ZBEC	<ul style="list-style-type: none"> • Speeds up vulcanization process • Improves scorch safety • Ensures uniform cure
7	Activators (Zinc Oxide / Stearic Acid)		Zinc Oxide (ZnO), Stearic Acid	<ul style="list-style-type: none"> • Activates vulcanization process • Improves physical properties • Enhances cure efficiency
8	Antioxidants & Antiozonants (TMQ / IPPD / 6PPD)		TMQ, IPPD, 6PPD, BHT, RD, PA	<ul style="list-style-type: none"> • Protects against oxidation and aging • Prevents ozone cracking and weathering • Increases service life
9	Color Pigments (Carbon Black / Iron Oxide / Titanium Dioxide)		Carbon Black, Iron Oxide, Titanium Dioxide	<ul style="list-style-type: none"> • Provides desired color and appearance • Improves UV resistance • Enhances product aesthetics
10	Processing Additives (Waxes / Processing Aids)		PE Wax, Stearic Wax, Processing Aids	<ul style="list-style-type: none"> • Improves surface finish • Reduces friction during processing • Enhances extrusion quality

MANUFACTURING PROCESS OF RUBBER STRIPS & PROFILES									
RAW MATERIAL RECEIPT	BATCH WEIGHING	RUBBER MIXING (INTERNAL MIXER / OPEN MILL)	COMPOUND PREPARATION	EXTRUSION / PROFILE FORMING	VULCANIZATION / CURING	COOLING	CUTTING TO SIZE	INSPECTION & TESTING	PACKING & DISPATCH

HSN CODE 4008	EXCELLENT SEALING	VIBRATION ABSORPTION	WEATHER & OZONE RESISTANT	WIDE TEMPERATURE RANGE	LONG SERVICE LIFE	HIGH QUALITY & DIMENSIONAL ACCURACY	RELIABLE & ENVIRONMENT FRIENDLY
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- Consistent Material Properties

These properties make Sandhyaflex Rubber Strips and Profiles ideal for sealing, cushioning, edge protection, expansion joint systems, glazing applications, industrial equipment, automotive components, doors and windows, bridges, and various infrastructure projects.

Applications by Countries:

India

- Widely used in commercial buildings, industrial facilities, metro rail projects, and infrastructure developments.
- Commonly installed in doors, windows, glazing systems, expansion joints, and electrical enclosures.
- Increasing demand in smart city projects, airports, highways, and transportation infrastructure.

China

- Extensively used in large-scale construction, manufacturing, and transportation sectors.
- Preferred for sealing systems in high-rise buildings, railway infrastructure, and industrial equipment.
- Widely adopted in automotive, metro rail, and infrastructure development projects.

United States

- Used in commercial buildings, industrial plants, automotive manufacturing, and transportation infrastructure.
- Commonly installed in HVAC systems, glazing applications, machinery, and expansion joint systems.
- Preferred for weatherproofing, vibration isolation, and sealing applications.

Europe

- Widely used in building construction, transportation networks, and industrial engineering projects.
- Commonly specified for doors, windows, curtain wall systems, and bridge expansion joints.
- Strong demand due to stringent quality, safety, and environmental standards.

Middle East

- Used in commercial towers, airports, industrial facilities, and infrastructure projects.
- Suitable for extreme temperatures, UV exposure, and harsh environmental conditions.
- Increasing adoption in smart cities, transportation systems, and large-scale construction projects.

Africa

- Applied in residential buildings, industrial facilities, transportation infrastructure, and public works projects.
- Used for sealing, edge protection, glazing, and expansion joint applications.
- Growing demand due to rapid urbanization and expanding infrastructure development programs.

Southeast Asia

- Widely used in commercial construction, manufacturing facilities, ports, and transportation projects.
- Commonly installed in glazing systems, industrial equipment, and weatherproofing applications.
- Increasing demand driven by urban development and industrial expansion.

Australia

- Used in mining facilities, commercial buildings, transportation infrastructure, and industrial plants.
- Preferred for weather-resistant sealing and vibration-control applications.
- Widely adopted in construction projects requiring long-term durability and environmental resistance.

Get in touch:

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