

Company Presentation (Updated: May 2020)

SOGO SpA

Technical **M**OULDDED **R**UBBER and **E**XPANDED **R**UBBER

LAB **T**EST

Design & **M**anufacturing



— SINCE 1967 —

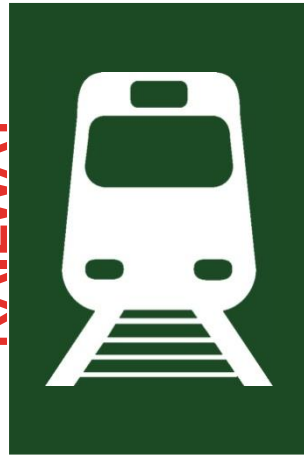
SOGO Group & Mission

SOGO SpA Group is a consolidated industrial reality, focused on the design, production and distribution of **technical RUBBER and EXPANDED rubber components** mainly for the **automotive, industrial and railway** applications; Other than for the production of rubber compounds and **Lab Tests** on finished products

AUTOMOTIVE



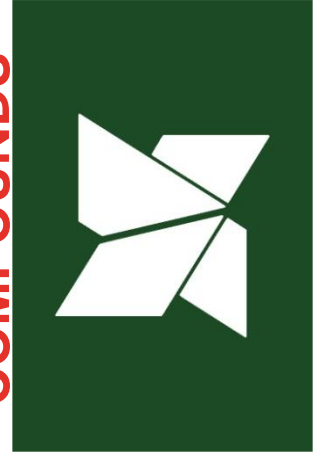
RAILWAY



INDUSTRY



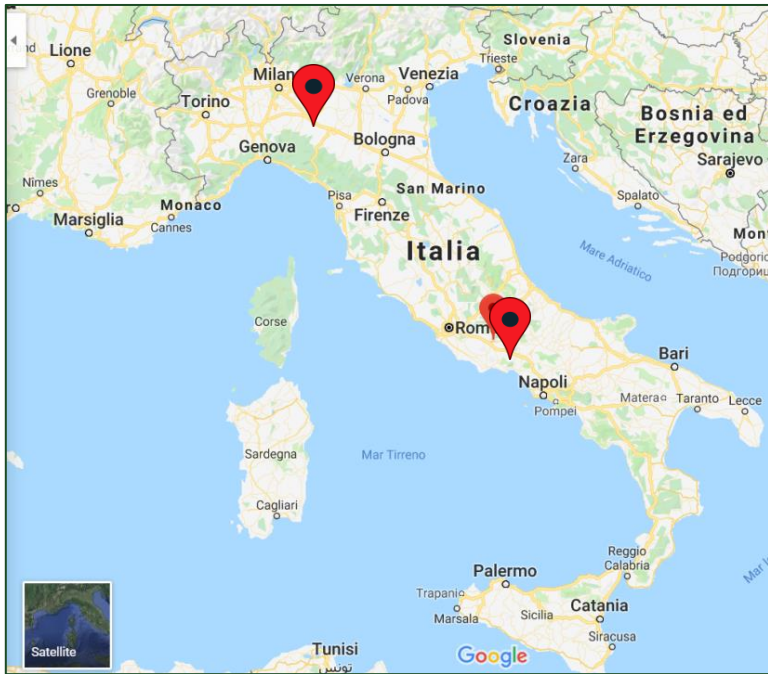
COMPOUNDS



MISSION

Be recognized as a **reliable and quality global partner** in the **DESIGN** and in the **PRODUCTION** of technical rubber, expanded rubber and co-moulded components; being able to support Customer's engineering dpt. in order to co-design and **TEST** new elastomeric solutions designed to achieve the Customer specifications at the **best price in the market**

SOGO Where We are - Locations



ITALIA - Frosinone



SOGO SpA – with its HeadQuarter and its main **Production Facility in Italy (Frosinone)** and a **warehouse in Milano area** - is expanding its presence **Worldwide** in order to further and better support the Customers' needs:

-  **Italy;**
-  **France;**
-  **Germany;**
-  **Bulgaria;**
-  **Marocco**



All the Production Plants have achieved all the **Certifications required** in order to supply **Automotive, Railway and Industry** applications



CERTIQUALITY
CERTIFICATE n. 7131

IONet
CERTIFICATE n. 11719

SOGO S.p.A.

IT - 03100 FROSINONE (FR) - VIA VONA ARMANDO 16
 IT - 03100 FROSINONE (FR) - VIA VONA ARMANDO 16

UNI EN ISO 9001:2015

IAF 14

Progettazione, sviluppo, produzione e commercializzazione di massole e di articoli tecnici in gomma e similari per il settore automotive e per l'arriamento ferroviario.
 Design, development, production and trading of compounds and technical items made of rubber and the like for the automotive sector and for rail and tramway rolling stock.

14/08/2018
14/08/2021

ACCREDIA
CISQ

ISO 9001

CERTIQUALITY
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IATF 16949:2016

IAF 14

Progettazione e produzione di massole e di articoli tecnici in gomma.
 Design and production of compounds and technical items made of rubber.

14/08/2018
13/09/2021

ACCREDIA
CISQ

IATF

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UNI EN ISO 14001:2015

IAF 14

Progettazione, sviluppo, produzione e vendita di massole e articoli in gomma e similari per il settore automotive e per l'arriamento ferroviario.
 Design, development, production and sale of compounds and technical items of rubber and similar for automotive fleet and for rail and tramway rolling stock.

14/08/2018
20/08/2018

ACCREDIA
CISQ

ISO 14001

ATTESTATO ENERGIA
 PRODOTTA DA FONTI RINNOVABILI

100% ENERGIA VERDE*

Si attesta che l'energia elettrica fornita da Enegan S.p.A. è certificata da Garanzia d'Origine (GO)*. Prodotta esclusivamente da impianti che utilizzano fonti rinnovabili, in conformità con la Direttiva 2009/28/CE e con la Deliberazione dell'Autorità per l'Energia Elettrica e il Gas - ABG/elt.104/11.

100% ENERGIA VERDE

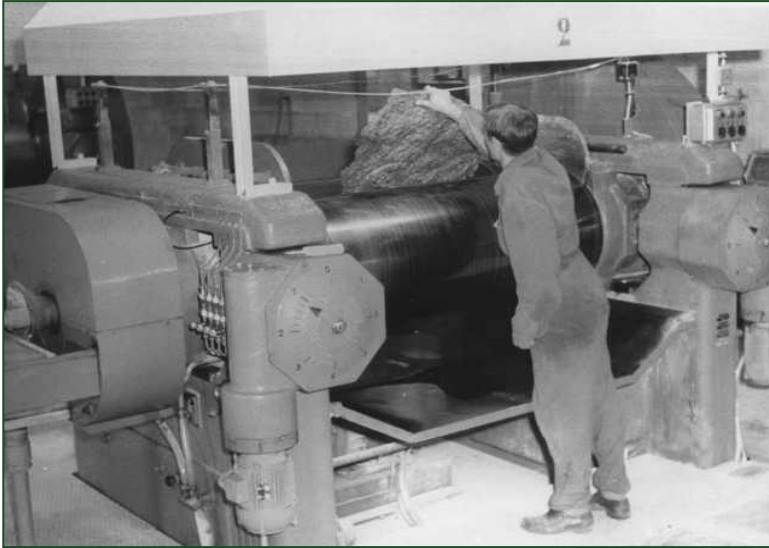
ENEGAN LUCE GAS

*La Garanzia di Origine dell'energia elettrica è una certificazione che attesta l'origine rinnovabile della fonte energetica. Il GSE emette i titoli GO che garantiscono la produzione di energia elettrica da fonti rinnovabili.

14/08/2018
14/08/2021

100% GREEN

ALWAYS ASK FOR THE UPDATED ONES!



Founded in **1967** in Frosinone Italy,
SOGO SpA Italian production plant
covers more than **25.000**
square/meters with a production
capacity over **9.000 tons/year** and more
than **1.500 compounds formulations.**

www.sogo.it

SOGO
S.p.A

1967

SOGO S.P.A.
INDUSTRIA ARTICOLI TECNICI IN GOMMA

1998

SOGO[®] s.p.a.
ARTICOLI TECNICI IN GOMMA

2006

 **SOGO**
RUBBER TECHNICAL PRODUCTS

 **SOGOLAB**
FREE TO SHAPE

2017

SOGO Italy - Frosinone – Renovation Plant (finished in September 2019)





SOGO LAB

FREE TO SHAPE

In **2016** «**SOGO-LAB**» was born, thanks to important investments in lab-instruments, technologies and highly specialized personnel; with the aim of supporting customers in the **design**, **co-design** and in the **testing** phases

CONCEPT
DESIGN

CO-DESIGN

ENGINEERING

LAB
SIMULATIONS

PROTOTYPING

TESTING



NEW LAB TOOLS

Dynamometer, **ShoreA Durometer**, Rheometer, **Thickness Gauges**, Calipers, **Micrometers**, Profile Projector, **Compression Set**, Impact Tester, **Flammability Tester**, Ozone Tester, **Ovens**, Theraometer, **Mooney**, Laboratory Samples Press, **IRHD**, Densimeter, **Abrader**, 3D Measuring System, **Climatic Chamber**, MTS with climatic chamber, **CAD/CATIA/PROEng**



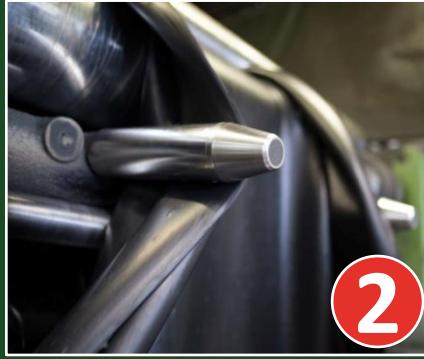


What do we do?

CO-DESIGN



COMPOUND



RAPID AND STANDARD PROTOTYPE



MOULDED RUBBER



CO-MOULDING



EXPANDED EPDM & NEOPRENE



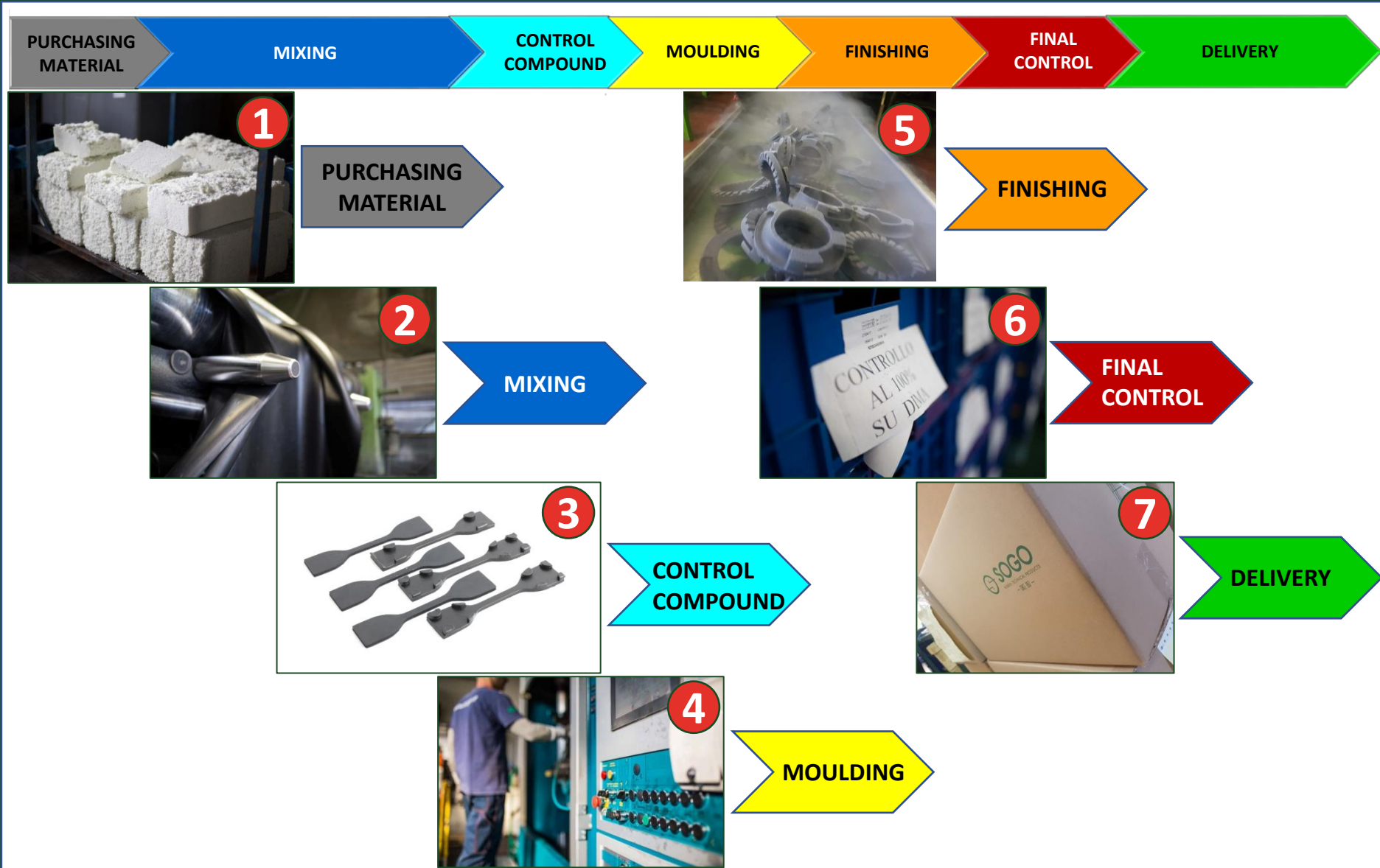
ASSEMBLYING



LAB TESTS



How do we do? Flow process diagram



Main Automotive & Railway – Direct OEM Customers

AUTOMOTIVE



FCA

FIAT CHRYSLER AUTOMOBILES



IVECO



Jeep

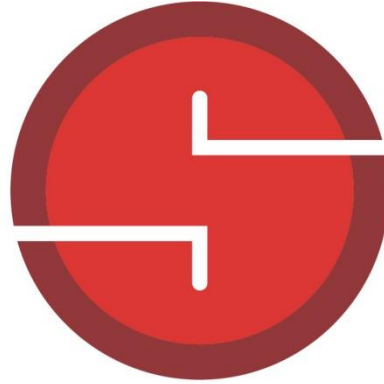


PSA
GROUPE

DAIMLER

RAILWAY





SOGOLAB

FREE TO SHAPE

— SINCE 1967 —

RHEOLOGICAL TESTS

- Mooney viscosity
- **Rheology testing (MDR)**

MATERIALS CHARACTERIZATION

- FT-IR Spectrometer
- **Thermogravimetric analysis (TGA)**
- Differential Scanning Calorimetry

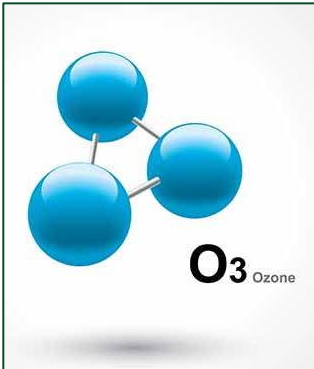


PHYSICAL-MECHANICAL TESTS

- Determination of ShA Hardness
- **Determination of IRHD and mIRHD Hardness**
- Determination of Electrical Resistance
- **Traction and compression dynamometric test**
- Determination Compression Static Hysteresis
- **Tear test**
- Compression Set Under Load
- **Compression Set under Deformation**
- Determination of Density
- **Determination of humidity**

ACCELERATED AGING TESTS

- Determination of Ozone Resistance
- **Aging tests in air oven up to 200°**
- Aging tests in fluids up to 200°
- **Water absorption tests**



CHECKS ON ELASTIC CHARACTERISTICS

- Determination of Static Stiffness on Finished Component
- **Determination of Dynamic Stiffness on Finished Component (0÷200 Hz)**
- Determination of Fatigue Strength on Finished Component at:
 - T.A.
 - +250°c in Climatic Room
 - -40°c in Climatic Room



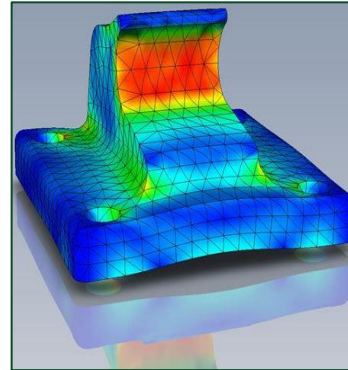
DIMENSIONAL CHECKS

- Dimensional checks with Smart Scope Optical Meter
- **Dimensional checks with Optical Meter 3D Core Essential GOM**



FURTHER SERVICES

- Finite Element Analysis FEM
- **Prediction Life**
- Flow Analysis (Mold Flow Simulations)
- **New Compounds research and Industrialization**
- Specimen molding
- **Processing of samples on Finished Component with Splitting Machine**





RUBBER

EXPANDED
RUBBER

CO-MOULDED



ANTIVIBRATION TANK



POWERTRAIN APPLICATIONS



COMPONENTS



ANTI-NOISE COWLINGS



RUBBER

EXPANDED
RUBBER

CO-MOULDED



BELLOWS



FUEL INJECTION SYSTEM GASKETS



FUEL VAPOR PIPE AND FITTING



WATER DRAIN PIPES AND FITTINGS



RUBBER

EXPANDED
RUBBER

CO-MOULDED



VIBRATION DAMPINGS FOR SUSPENSION SYSTEM



VIBRATION DAMPING FOR SUSPENSION SYSTEM



VIBRATION DAMPING FOR SUSPENSION SYSTEM



VIBRATION DAMPINGS FOR SUSPENSION SYSTEM



RUBBER

EXPANDED
RUBBER

CO-MOULDED



SUSPENSION COMPONENTS



RADIATOR SUPPORTS



ELASTIC ANCHORS



ANCHORS



RUBBER

EXPANDED
RUBBER

CO-MOULDED



HOLE PLUGS AND GASKETS



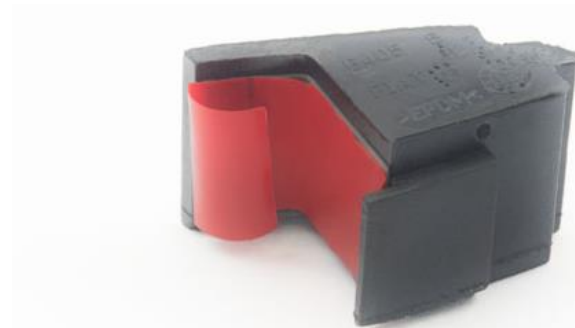
BUFFERS



DOOR BUFFER



BUFFER FOR LIGHTING COMPONENTS



RUBBER

EXPANDED
RUBBER

CO-MOULDED



BELLOWS



BIG DIMENSION BELLOWS FOR INDUSTRIAL VEHICLES



CONDENSATE DRAIN PIPES



COMPONENTS



RUBBER

EXPANDED
RUBBER

CO-MOULDED



ITEM FOR WIRING



ITEMS FOR WIRING



LOGOS



AIR COUPLINGS



RUBBER

EXPANDED
RUBBER

CO-MOULDED



INSULATING GASKET



GASKETS FOR OIL DIPSTICK



FIXING RUBBER ITEMS



FUEL INJECTION SYSTEM GASKET



RUBBER

EXPANDED
RUBBER

CO-MOULDED



3 WAYS TUBES



3 WAYS TUBES



VAPOR TUBES



VAPOR TUBE WITH PROTECTION SHEATH



RUBBER

EXPANDED RUBBER

CO-MOULDED



AIR HOSES



DRAIN PIPES



TUBES PROTECTIONS



TUBES PROTECTION



RUBBER

EXPANDED
RUBBER

CO-MOULDED



ANTIVIBRATIONS FOR SUSPENSION SYSTEM



MUFFLER SUPPORTS



RUBBER BUSH



HEAT PROTECTION



RUBBER

EXPANDED
RUBBER

CO-MOULDED



**EXPANDED NEOPRENE &
EPDM MATS**



**EXPANDED MATERIAL
GASKET**



**EXPANDED MATERIAL
GASKETS**



**REAR MIRROR EXPANDED
MATERIAL GASKETS**



RUBBER

**EXPANDED
RUBBER**

CO-MOULDED



ANCHORS



RADIATOR SUPPORTS



INSERTS FOR MUFFLER SUPPORT



INSERTS FOR MUFFLER SUPPORT



RUBBER

EXPANDED
RUBBER

CO-
MOULDED



RADIATOR SUPPORTS



PLUG



PLUG



BUFFERS



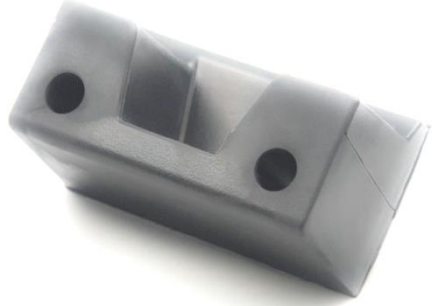
RUBBER

EXPANDED
RUBBER

CO-
MOULDED



DOOR BUFFER



CONDENSATE DRAINS



WASHERS



BUFFERS



RUBBER

EXPANDED
RUBBER

CO-
MOULDED



ITEM FOR WIRING



GASKETS



ANTI-NOISE GASKET



VIBRATION DAMPINGS FOR SUSPENSION SYSTEM



RUBBER

EXPANDED
RUBBER

CO-
MOULDED



VIBRATION DAMPINGS FOR SUSPENSION SYSTEM



VIBRATION DAMPING FOR SUSPENSION SYSTEM



HEAT PROTECTION CUPS



AIR CONVEYOR



RUBBER

EXPANDED
RUBBER

CO-
MOULDED



TUBES PROTECTION



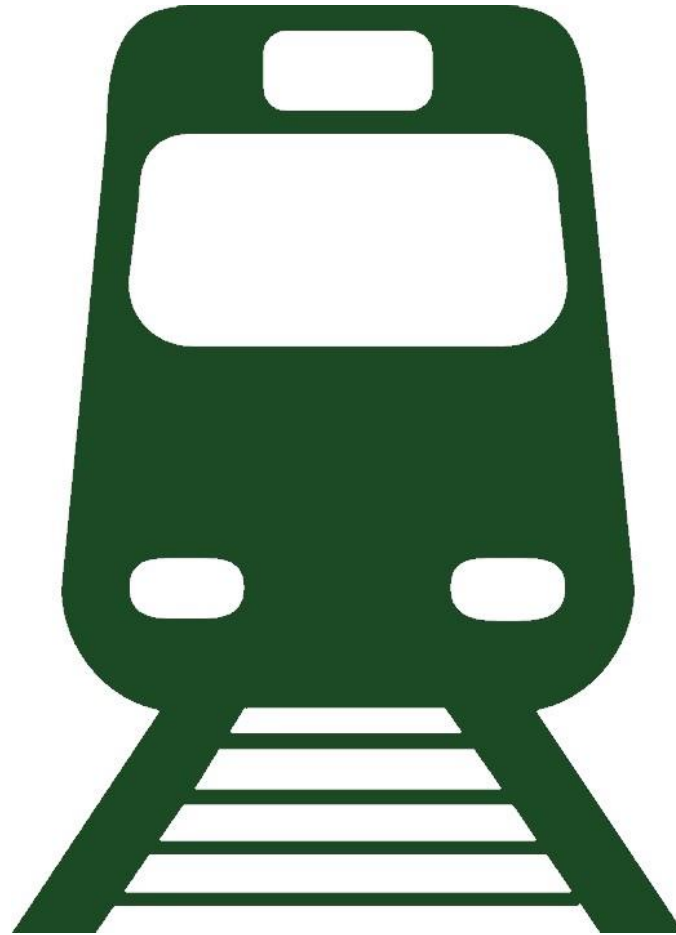
CO-MOULDED BUFFER



RUBBER

EXPANDED
RUBBER

CO-
MOULDED



RUBBER

EXPANDED
RUBBER

CO-MOULDED



RUBBER BOOT + INTERNAL PAD



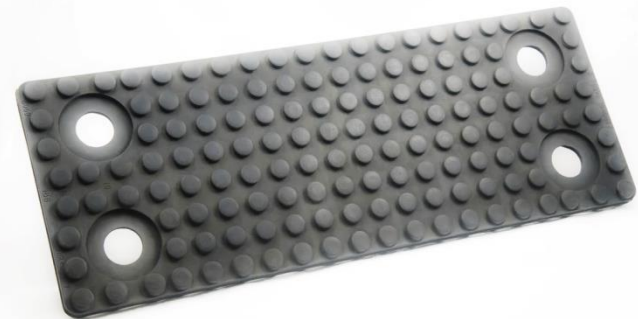
UNDER SLAB ELASTIC BEARING



RAIL PADS



RAIL PAD



RUBBER

EXPANDED RUBBER

CO-MOULDED



RAIL PADS



RAIL PADS



WASHERS



RAIL PAD



RUBBER

EXPANDED
RUBBER

CO-MOULDED



BRAKE MEMBRANES



RUBBER

EXPANDED
RUBBER

CO-MOULDED



EXPANDED NEPRENE & EPDM MATS



POLYURETANE MATS



RUBBER

**EXPANDED
RUBBER**

CO-MOULDED



BUMPER



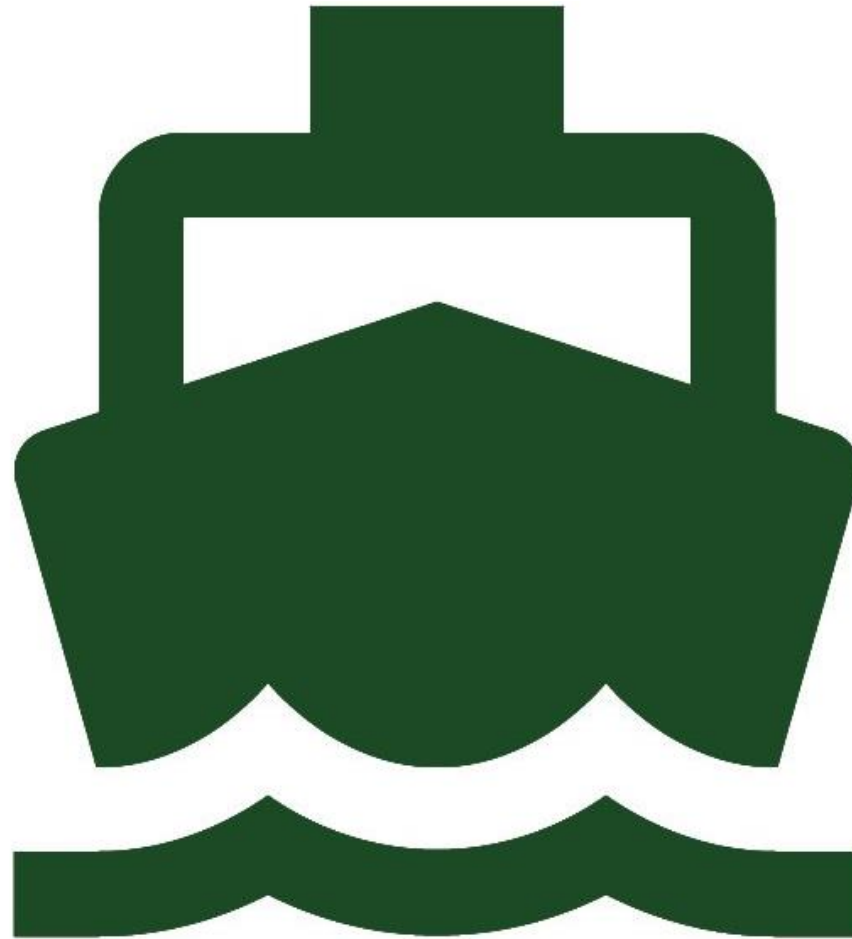
STOPPERS



RUBBER

EXPANDED
RUBBER

CO-
MOULDED



RUBBER

EXPANDED
RUBBER

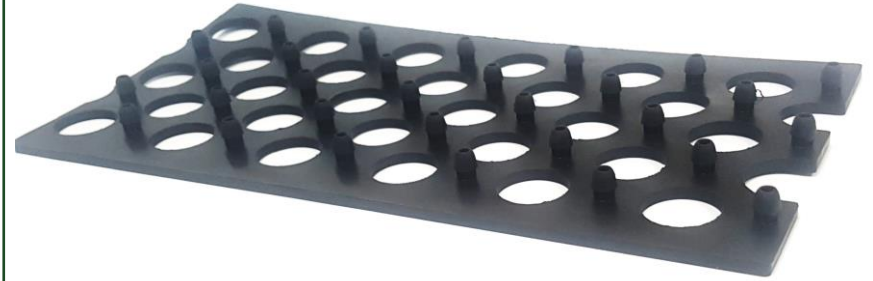
CO-MOULDED



DISTANCE ITEM



PAD WITH ANCORAGE PINS



GASKET



GAS MASKS



RUBBER

EXPANDED
RUBBER

CO-MOULDED



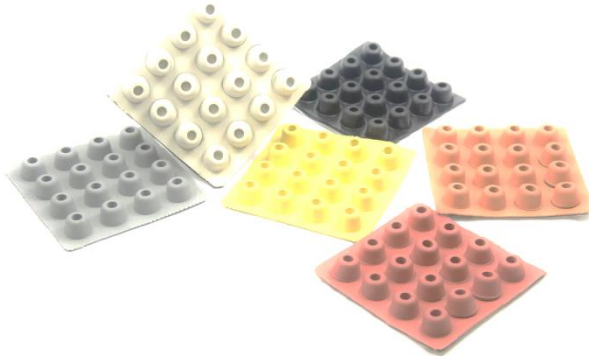
NAUTICAL ITEMS



NAUTICAL ITEMS



BUFFERS WITH ADHESIVE LAYER



FINS



RUBBER

EXPANDED
RUBBER

CO-MOULDED



RUBBER FABRIC



SPORT FLAT CONES



RUBBER

EXPANDED
RUBBER

CO-MOULDED



**EXPANDED NEOPRENE &
EPDM MATS**



**EXPANDED MATERIAL
GASKET**



RUBBER

**EXPANDED
RUBBER**

CO-MOULDED



ENGINE SUPPORTS



SIRENS FOR ALARMS



COMPONENTS



ANTI-SEISMIC BEARING



RUBBER

EXPANDED
RUBBER

CO-
MOULDED



METAL TO RUBBER COMPONENTS



HOUSEHOLD-ELECTRIC ITEMS



RUBBER

EXPANDED
RUBBER

CO-
MOULDED

| CONTACTS | TELEPHONE | NAME | E-MAIL |
|----------|-----------|------|--------|
|----------|-----------|------|--------|

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THANK YOU !



SOGO

RUBBER TECHNICAL PRODUCTS



SOGOLAB

FREE TO SHAPE