

COMPANY PRESENTATION

- TECHNICAL MOULDED RUBBER PRODUCTS;
- EXPANDED RUBBER MATS;
- LABORATORY TESTS



Design & Manufacturing



SOGO
RUBBER TECHNICAL PRODUCTS



SOGOLAB
FREE TO SHAPE

— SINCE 1967 —



SOGO SpA Group is an Italian consolidated industrial reality,
Focused on the design, production and distribution of:



- **technical RUBBER components;**
- **EXPANDED RUBBER mats**

Mainly for the **automotive, industrial**
and **railway** applications



- **development & production of RUBBER COMPOUNDS**
- **LABORATORY TESTS** on finished products

AUTOMOTIVE



RAILWAY



INDUSTRY



COMPOUNDS



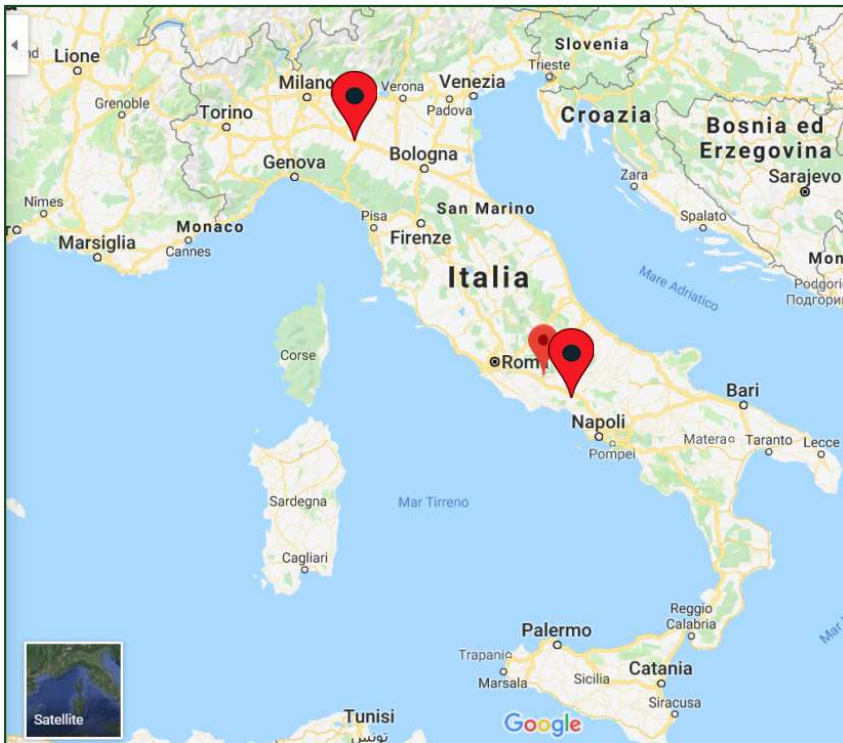
SOGO – Where We are



ITALY - Frosinone



SOGO SpA – with its HeadQuarter and its **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



The Production Plant has achieved all the **Certifications required** in order to supply **AUTOMOTIVE, Railway and Industry** applications



SOGO – Certificates



ISO 9001



IATF



ISO 14001

SOGO – Highlights



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**.

— SINCE 1967 —

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

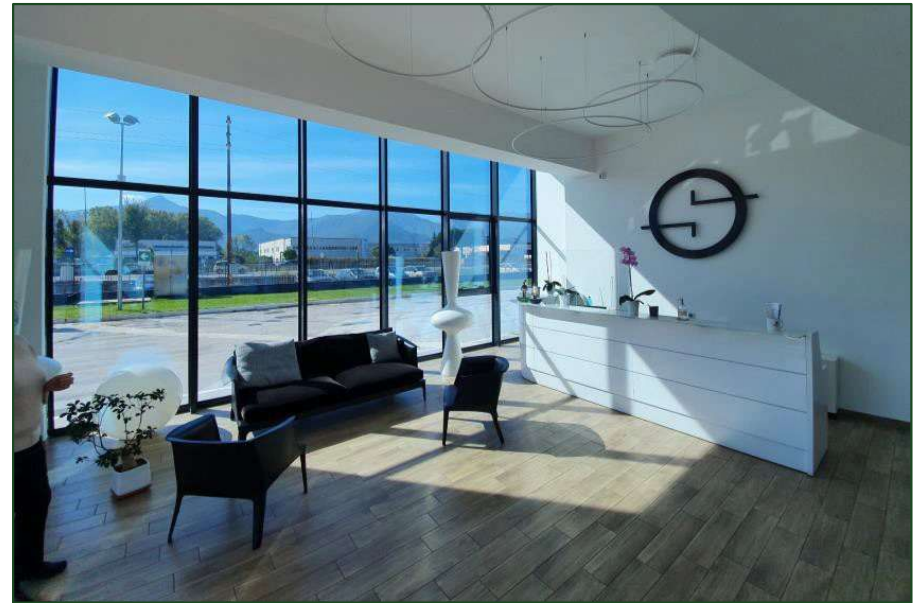
2006

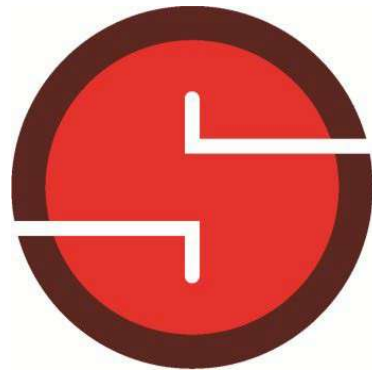
 **SOGO**
RUBBER TECHNICAL PRODUCTS

 **SOGOLAB**
FREE TO SHAPE

2017

SOGO – 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
PT
N

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, Design Tools

SOGO-Lab – New Laboratory

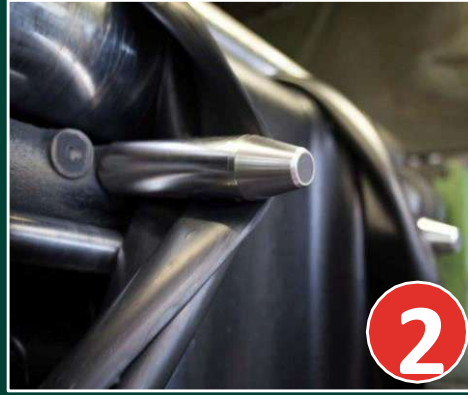


What do we do?

CO-DESIGN



COMPOUND



RAPID AND STANDARD PROTOTYPE



MOULDED RUBBER



CO-MOULDING



EXPANDED EPDM & NEOPRENE



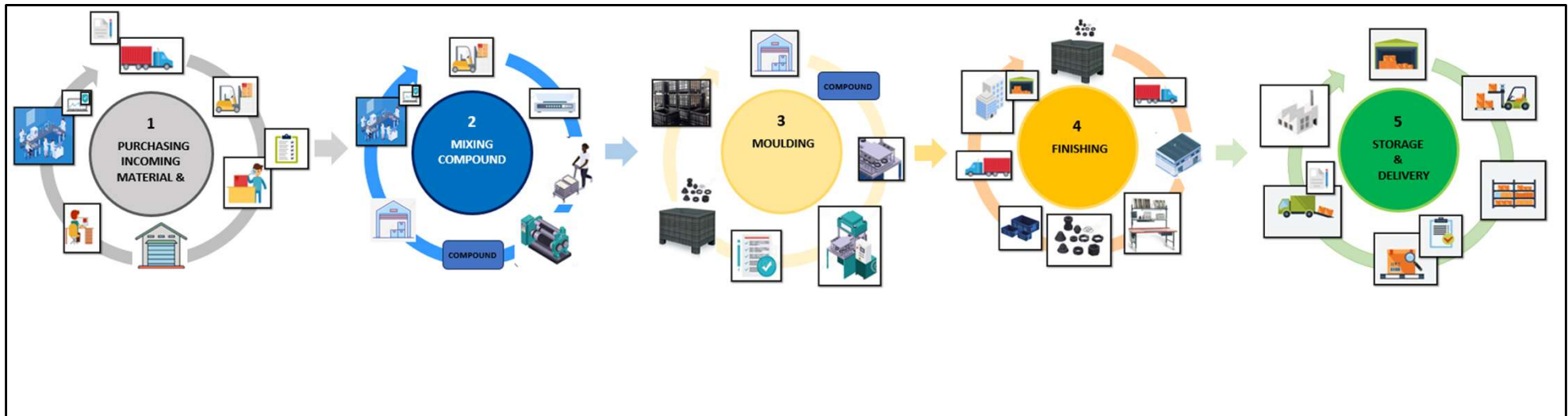
ASSEMBLYING

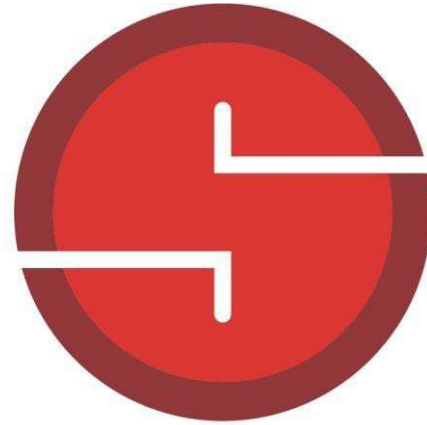


LAB TESTS



How do we do? Flow process diagram





SOGOLAB

FREE TO SHAPE

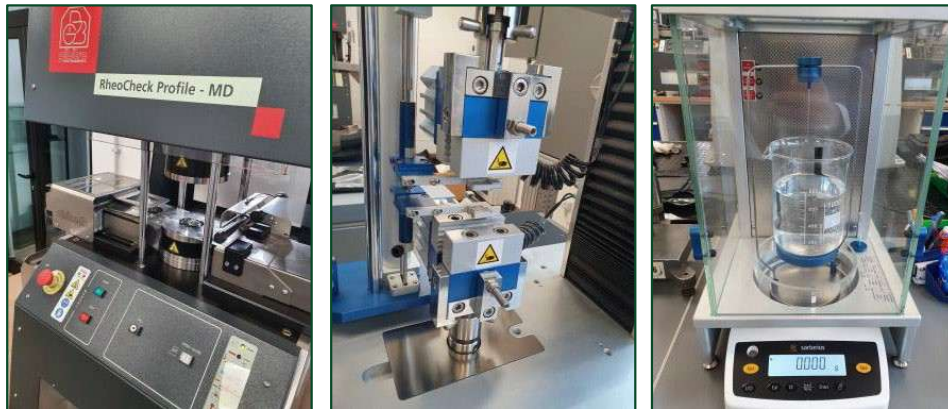
— SINCE 1967 —

RHEOLOGICAL TESTS

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

MATERIALS CHARACTERIZATION

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

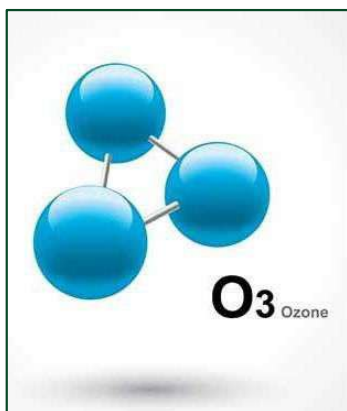


PHYSICAL-MECHANICAL TESTS

- 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**



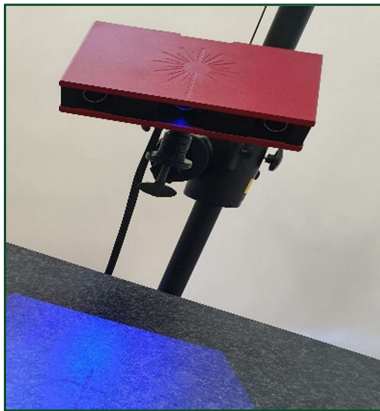
CHECKS ON ELASTIC CHARACTERISTICS

- 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



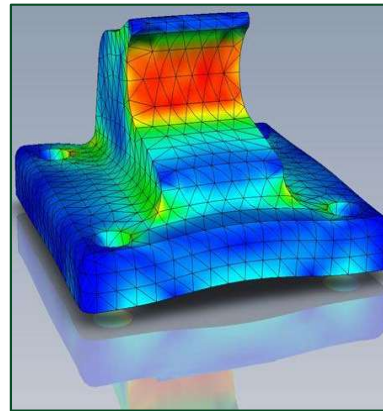
DIMENSIONAL CHECKS

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



FURTHER SERVICES

- Finite Element Analysis
- **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



MOULDED RUBBER



EXPANDED MATERIAL

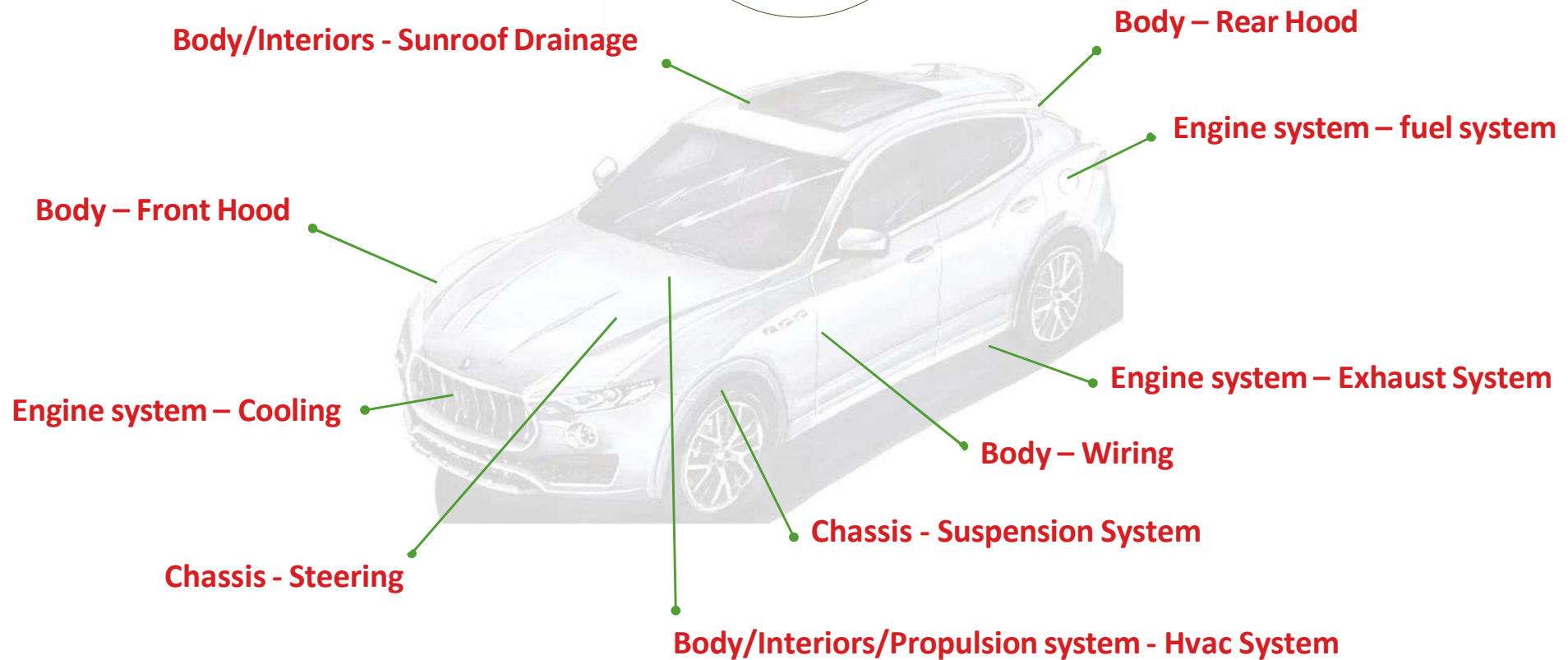


CO-MOULDED



PROTOTYPES





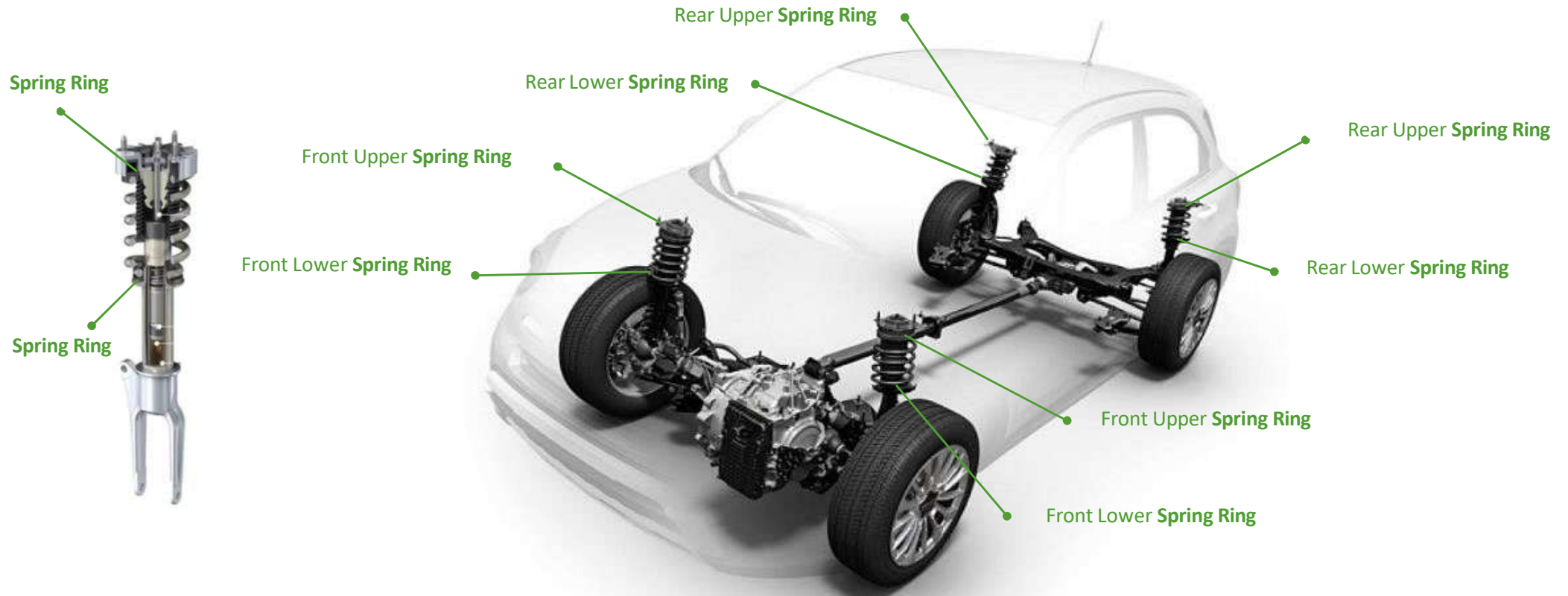
CHASSIS – Vibration Dampings for Suspension System



- **Category: Rubber**
- Material: NR/SBR 50÷80 ShA
- Technology: Injection Molding



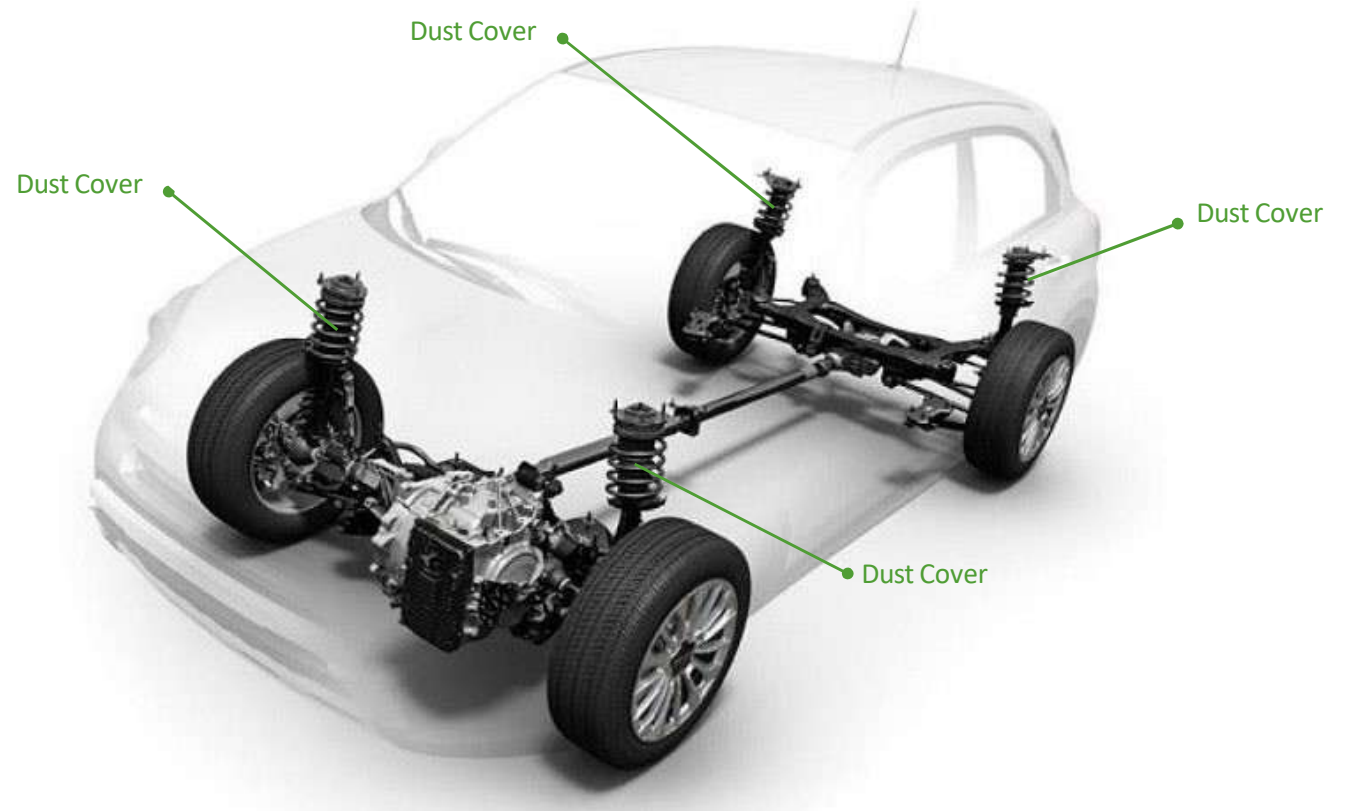
- **Category: rubber bonded to plastic insert**
- Material: NR/SBR 80 ShA + PA66 GF35
- Technology: Injection Molding



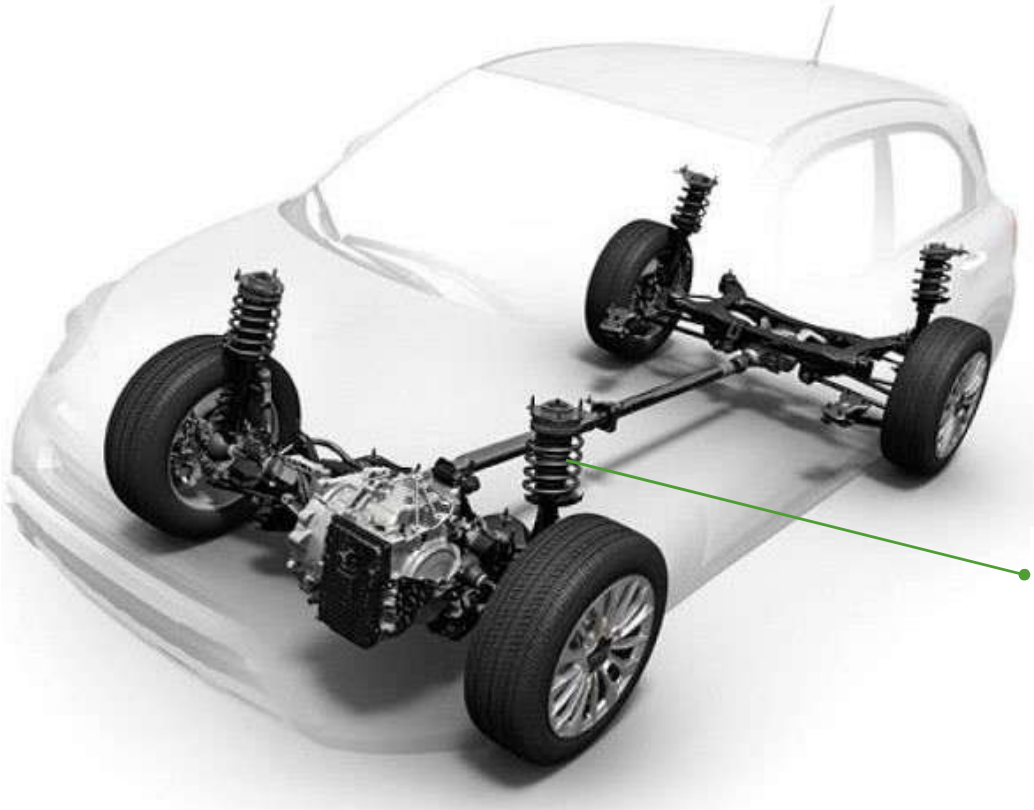
CHASSIS - Suspension System Bellows Dust Cover



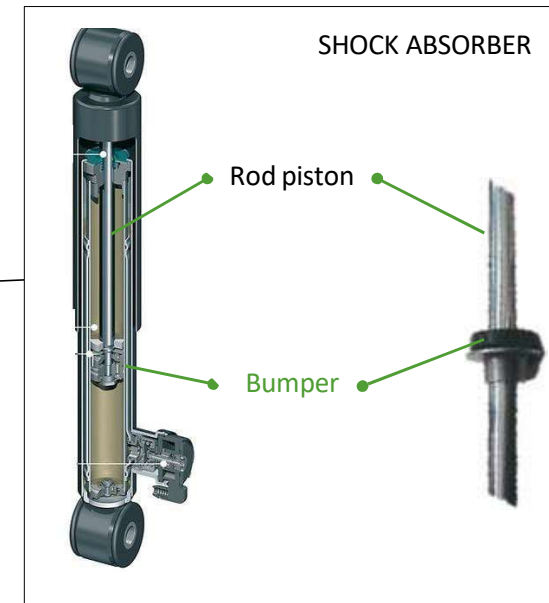
- **Category: Rubber**
- Material: EPDM 60÷70 ShA
- Technology: Injection Molding



CHASSIS – Bumper for Suspension System (rebound stop)



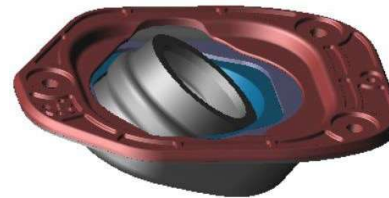
- **Category: Rubber**
- Material: HNBR 80 ShA
- Technology: Injection Molding



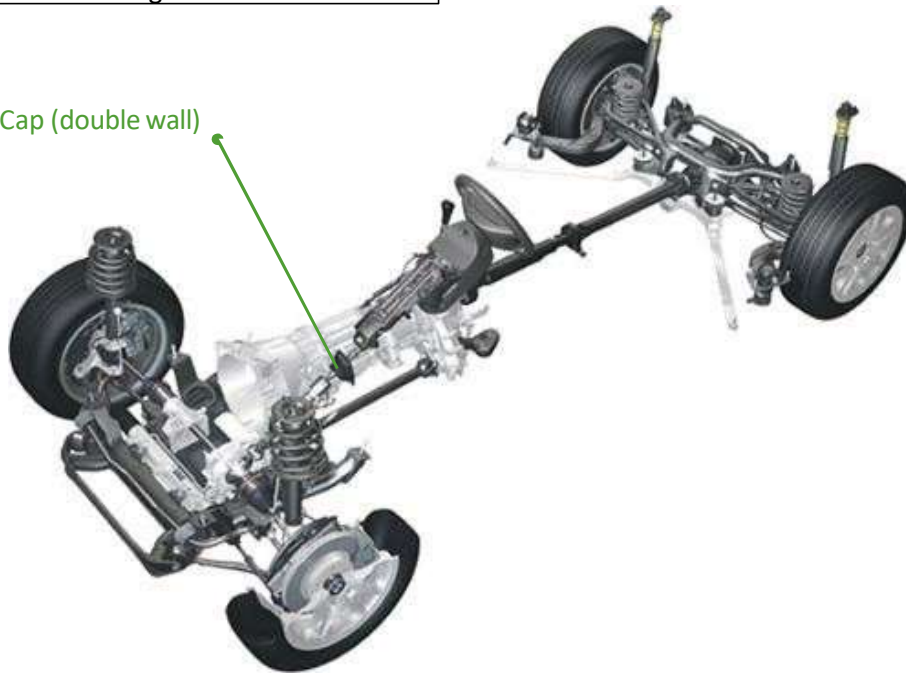
CHASSIS – Insulator Cap Steering Column (anti noise gasket)



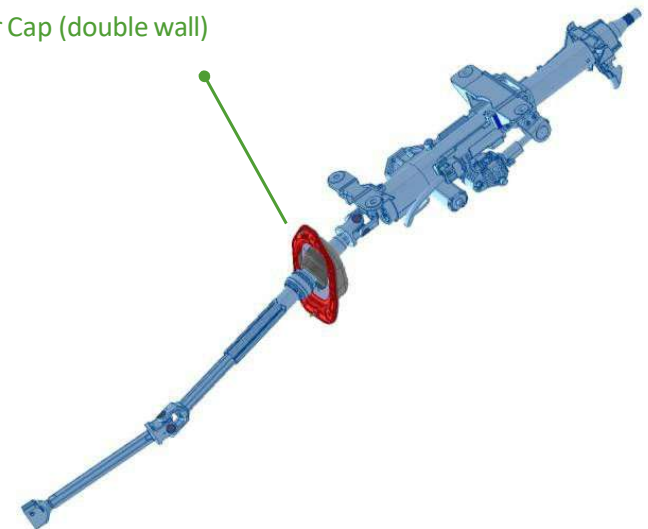
- **Category:** rubber assembled to plastic insert
- Material: EPDM 45 ShA + PP + PULER (if required)
- Technology: Injection Molding



Insulator Cap (double wall)



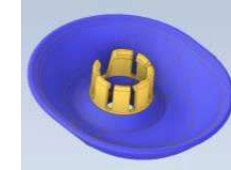
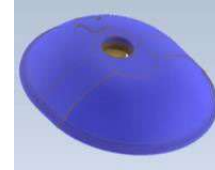
Insulator Cap (double wall)



CHASSIS – Sealing Cap Steering Column

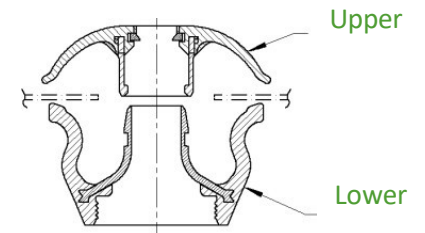
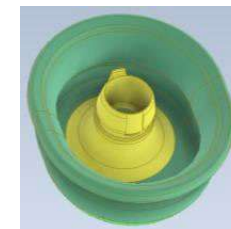
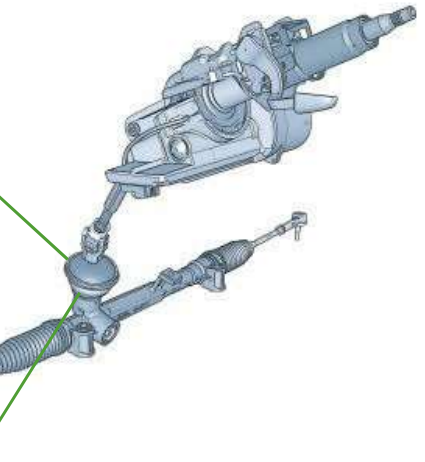


- **Category:** rubber bonded to plastic insert
- **Material:** EPDM 40 ShA + PA6 G15
- **Technology:** Injection Molding

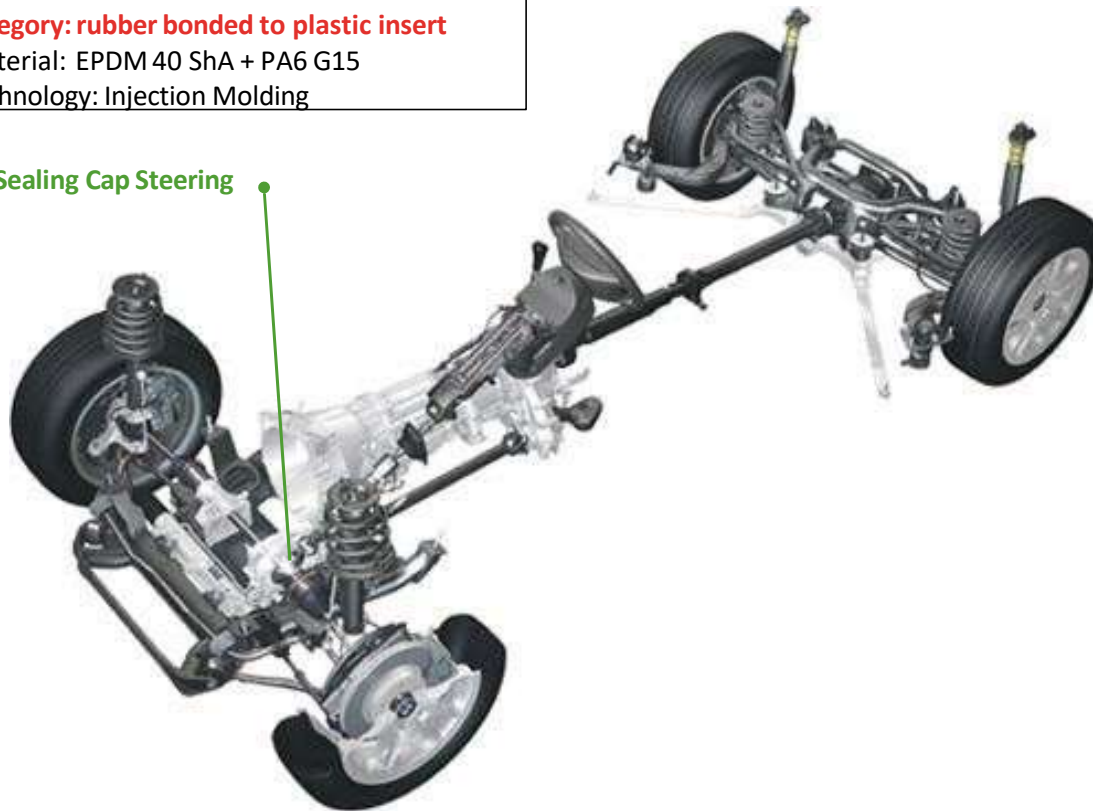


Upper Sealing Cap

Lower Sealing Cap



Sealing Cap Steering



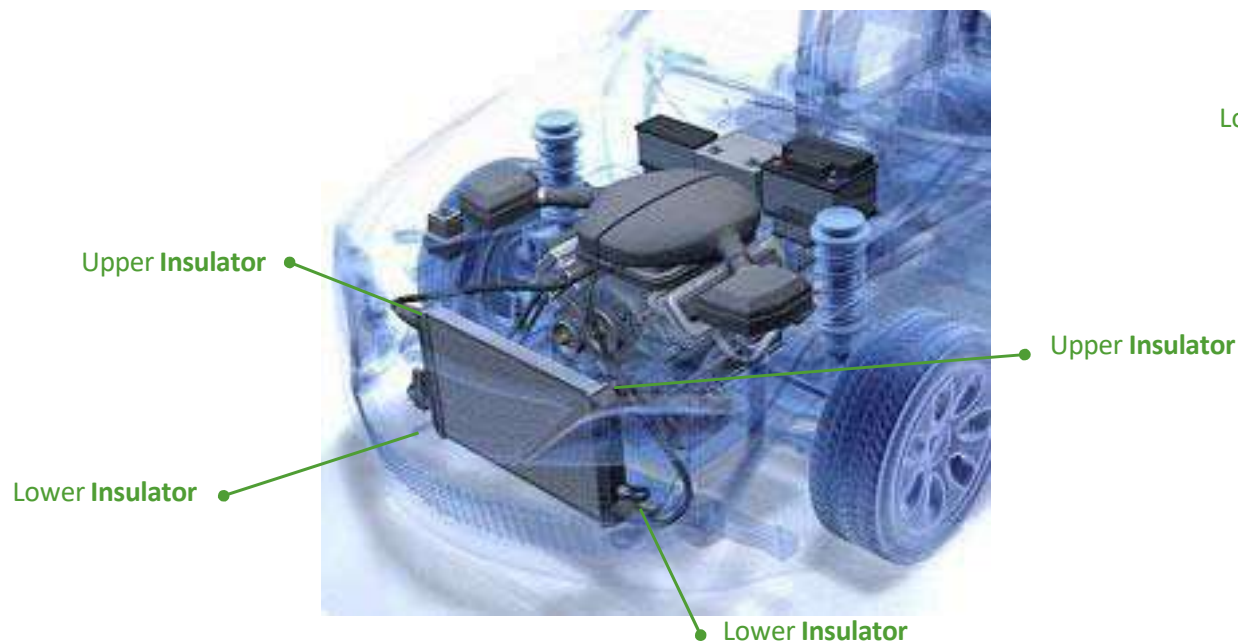
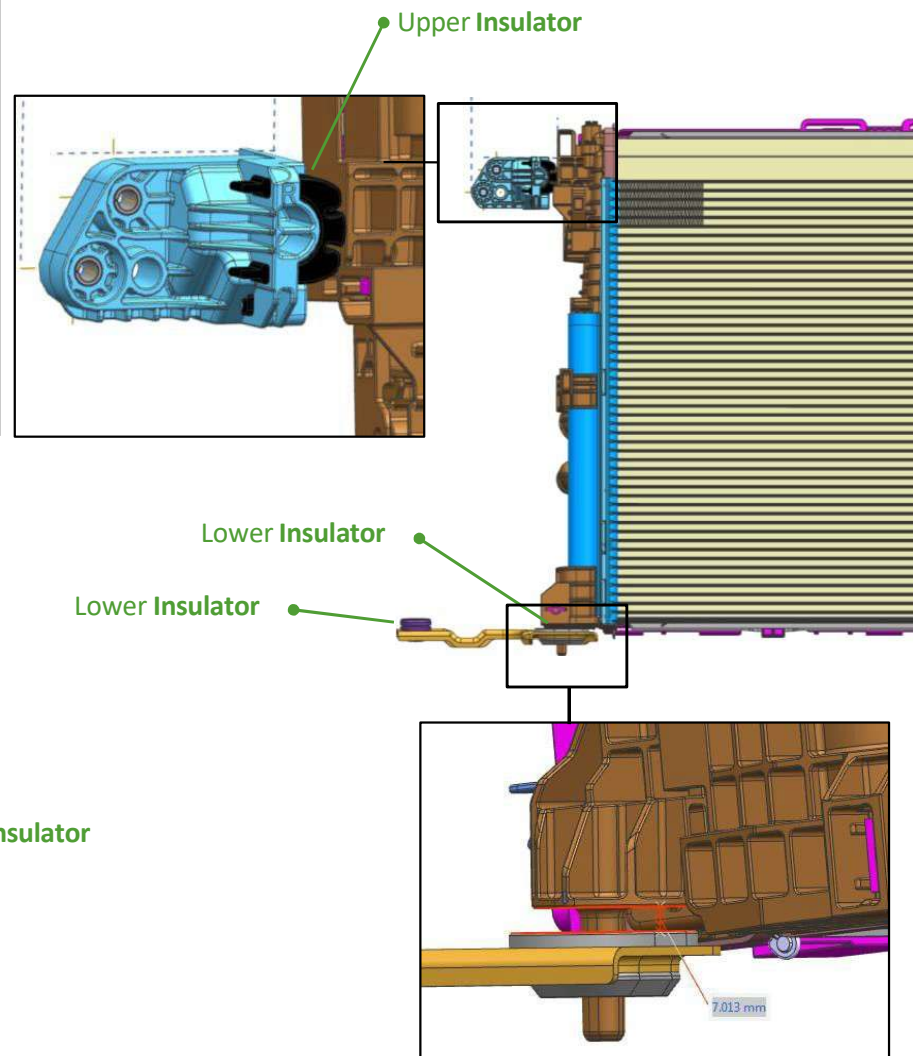
ENGINE SYSTEM – Cooling System Insulator (radiator support)



- **Category: Rubber**
- Material: EPDM 37÷60 ShA
- Technology: Injection Molding

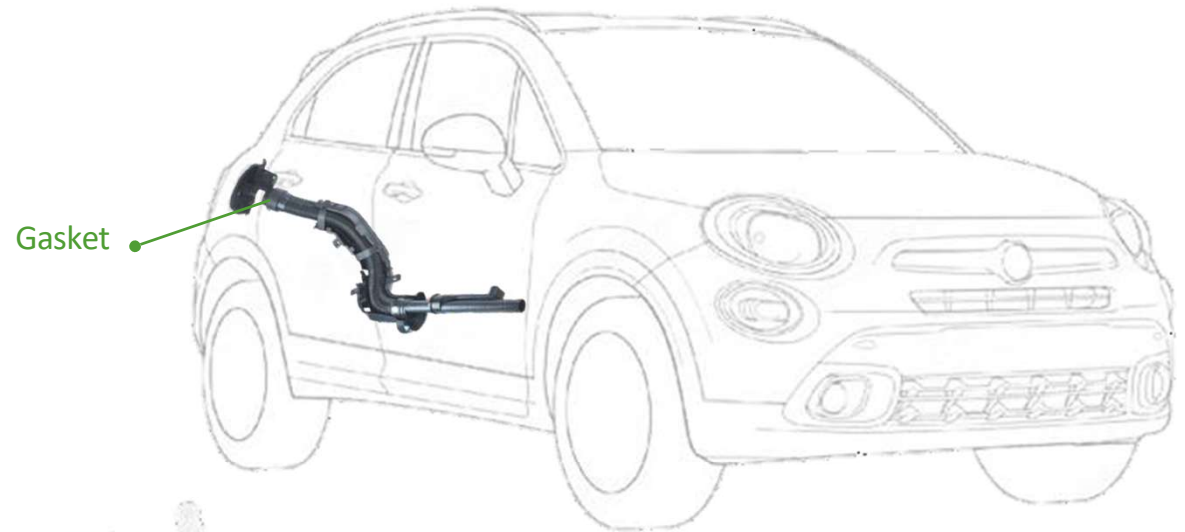


- **Category: : Rubber bonded to plastic insert**
- Material: EPDM perox 57 ShA + PA 66 GF30
- Technology: Injection Molding





- **Category: Rubber**
- Material: FKM 50÷60 ShA
- Material: NBR 50÷60 ShA
- Material: HNBR 60 ShA
- Technology: Injection Molding





- **Category: Rubber**
- Material: NR 50÷60ShA
- Material: EPDM 50÷60ShA
- Material: VMQ 60 ShA
- Technology: Injection Molding



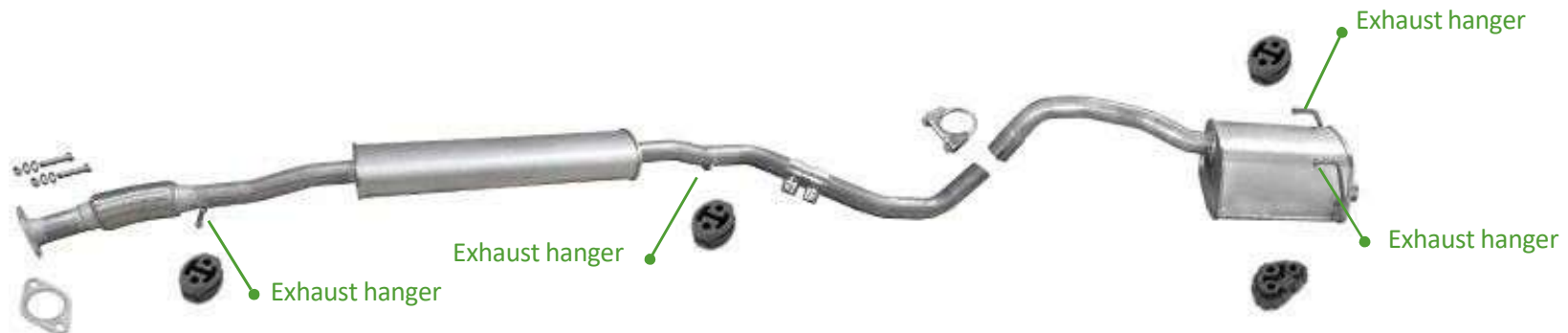
- **Category: Rubber assembled to polyester**
- Material: NR 50÷60ShA
- Material: EPDM 50÷60ShA
- Material: VMQ 60 ShA
- Technology: Injection Molding



- **Category: Rubber bonded to polyester**
- Material: NR 50÷60ShA
- Material: VMQ 60 ShA
- Technology: Injection Molding



- **Category: Rubber bonded to metal insert**
- Material: NR 50÷60 ShA
- Technology: Injection Molding



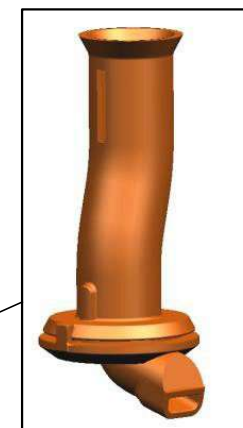


- **Category: Rubber**
- Material: EPDM 60 ShA
- Technology: Injection Molding

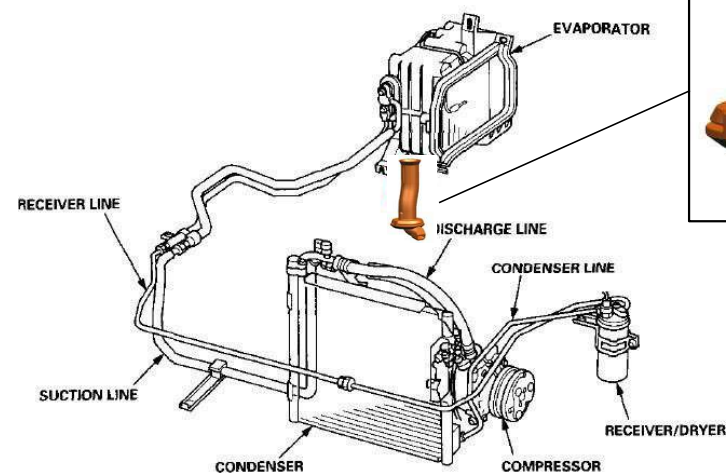
HVAC System

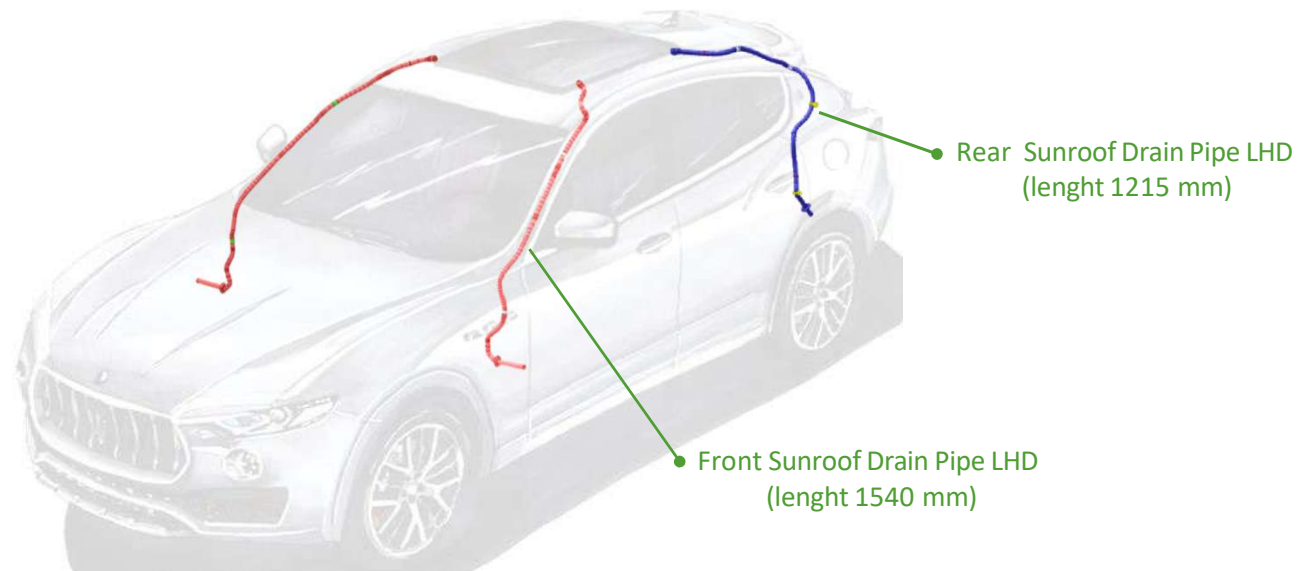


- **Category: Rubber assembled to plastic insert**
- Material: ACM 60 ShA
- Technology: Injection Molding

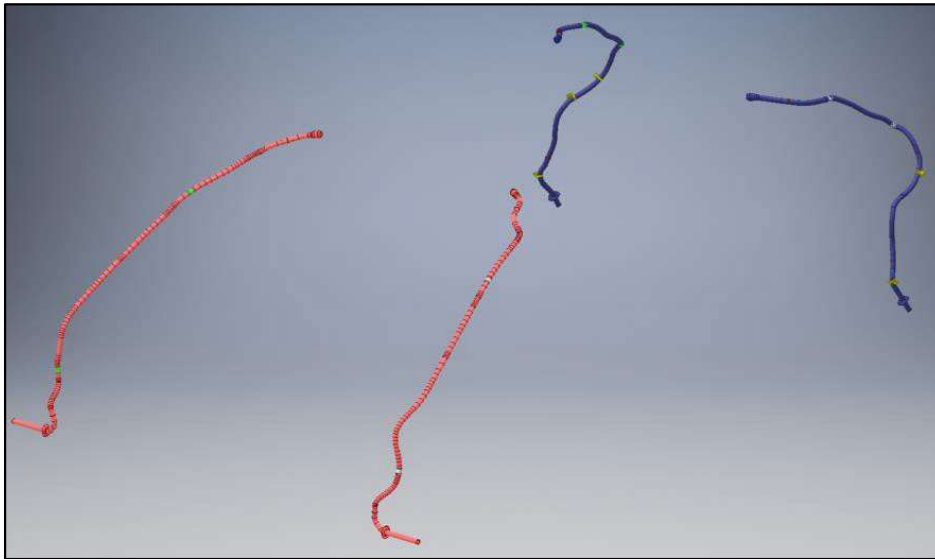


Drain Pipe





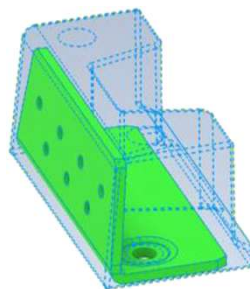
- **Category:** Rubber assembled to plastic insert
- **Material:** EPDM 50÷60ShA
- **Technology:** Injection Molding



BODY – Door Bumper Stop



- **Category:** Rubber bonded to metal insert
- **Material:** Butyl 60 ShA
- **Technology:** Injection Molding



- **Category:** Rubber
- **Material:** EPDM
- **Technology:** Injection Molding



Stellantis Project: X250 (Ducato)

Door Bumper



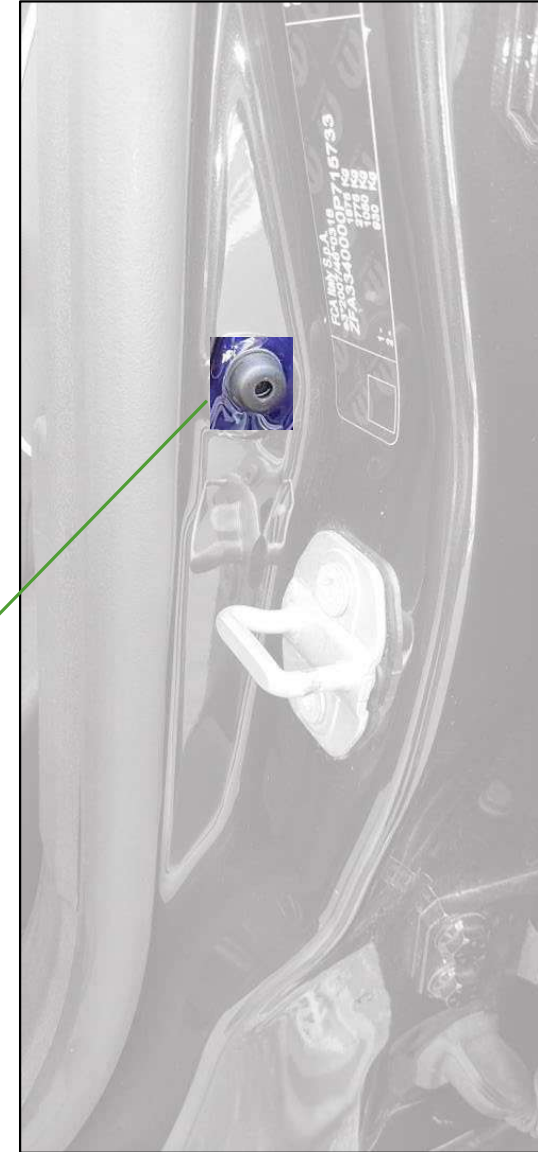
BODY – Door Bumper with/without Adhesive Layer



- **Category:** Rubber bonded to Acrylic Foam Tape
- **Material:** EPDM 50÷60ShA
- **Technology:** Injection Molding



Door Bumper



BODY – Front/Rear Hood – Fix Hood Stop



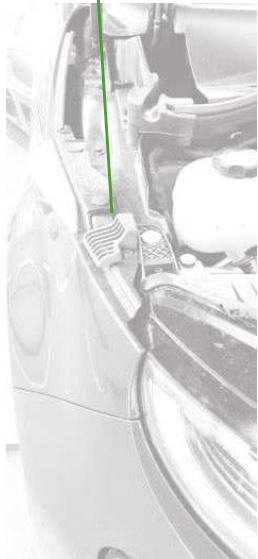
- **Category:** Rubber bonded to Acrylic Foam Tape
- **Material:** EPDM 60ShA
- **Technology:** Injection Molding



- **Category:** Rubber
- **Material:** EPDM 60÷80ShA
- **Technology:** Injection Molding

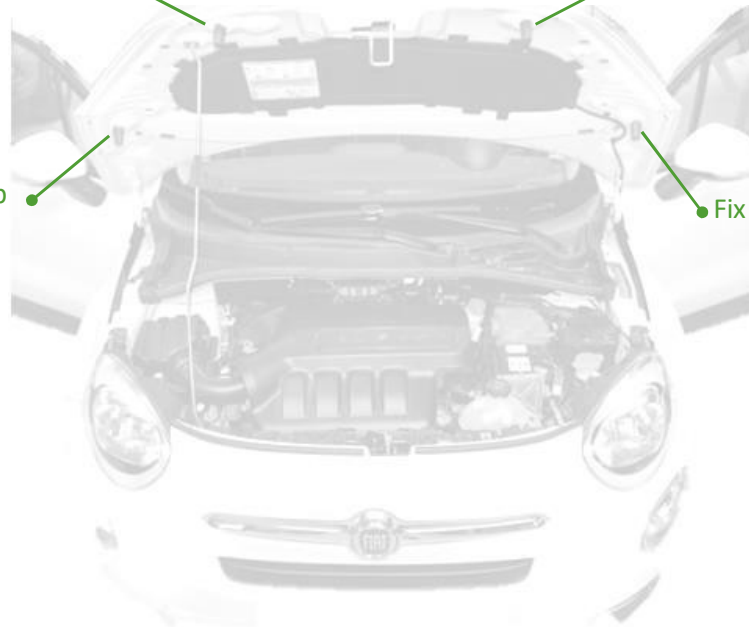


Fix Hood Stop



Fix Hood Stop

Fix Hood Stop



Fix Hood Stop

Fix Hood Stop

Fix Hood Stop



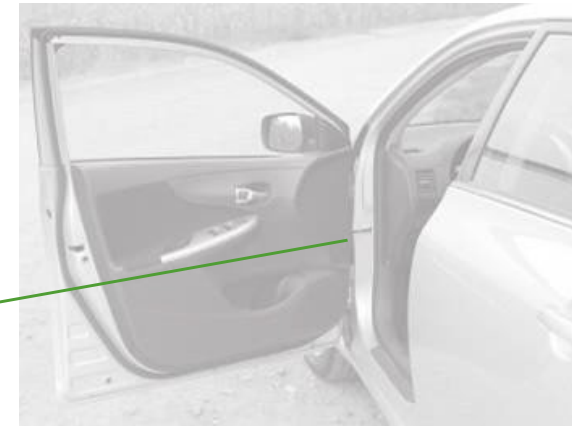
BODY – Wiring Grommet



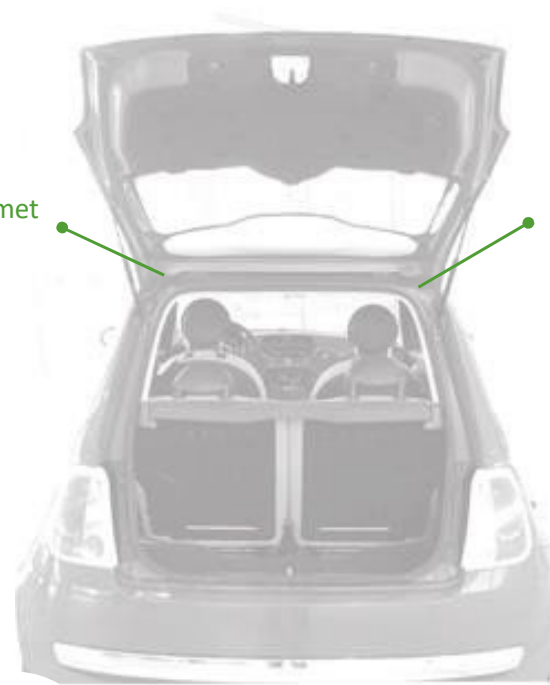
- **Category:** Rubber
- **Material:** EPDM 50÷60ShA
- **Technology:** Injection Molding



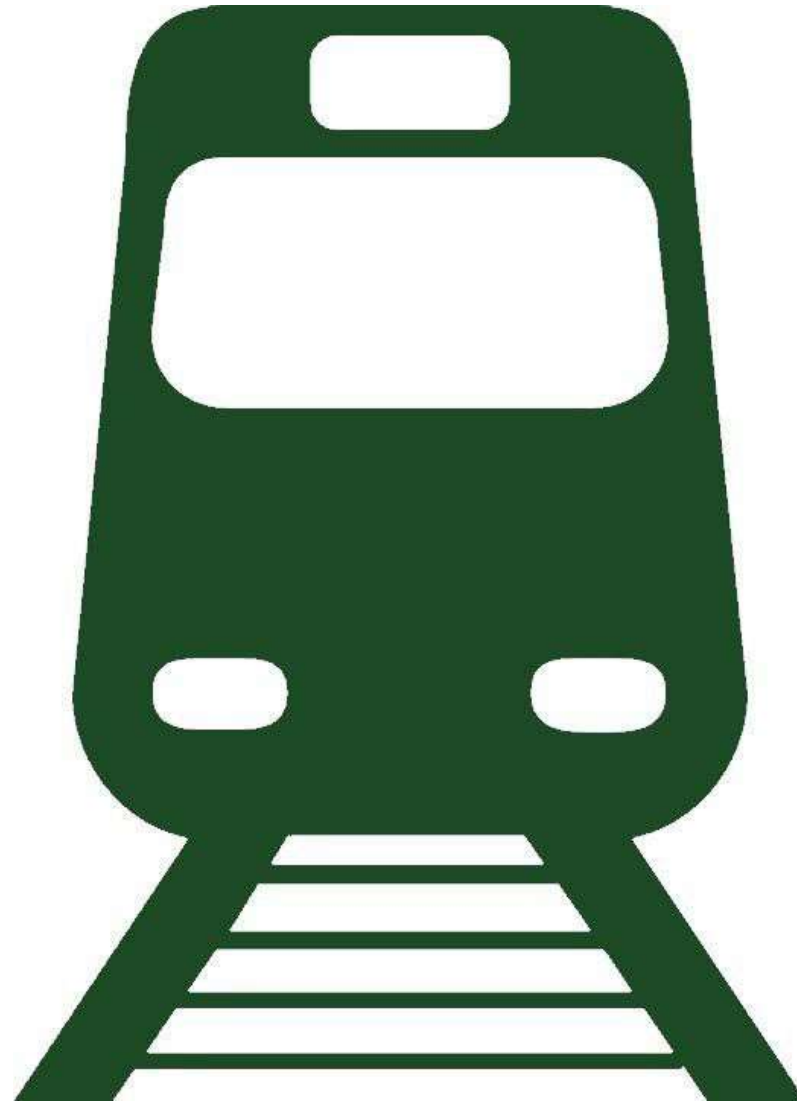
Wiring grommet



Wiring grommet



Wiring grommet



RUBBER

EXPANDED RUBBER

CO-MOULDED

RECYCLED RUBBER



RUBBER BOOT



UNDER SLAB ELASTIC BEARING



RAIL PADS



RAIL PADS



RAIL PAD



BRIDGE SUPPORTS



BRAKE MEMBRANES



ELASTIC PAD



WASHERS



RUBBER

EXPANDED RUBBER

CO-MOULDED



**EXPANDED NEOPRENE
SUB BALLAST MATS**



**EXPANDED EPDM
SUB BALLAST MATS**



RECYCLED RUBBER MAT



BUMBER



STOPPERS

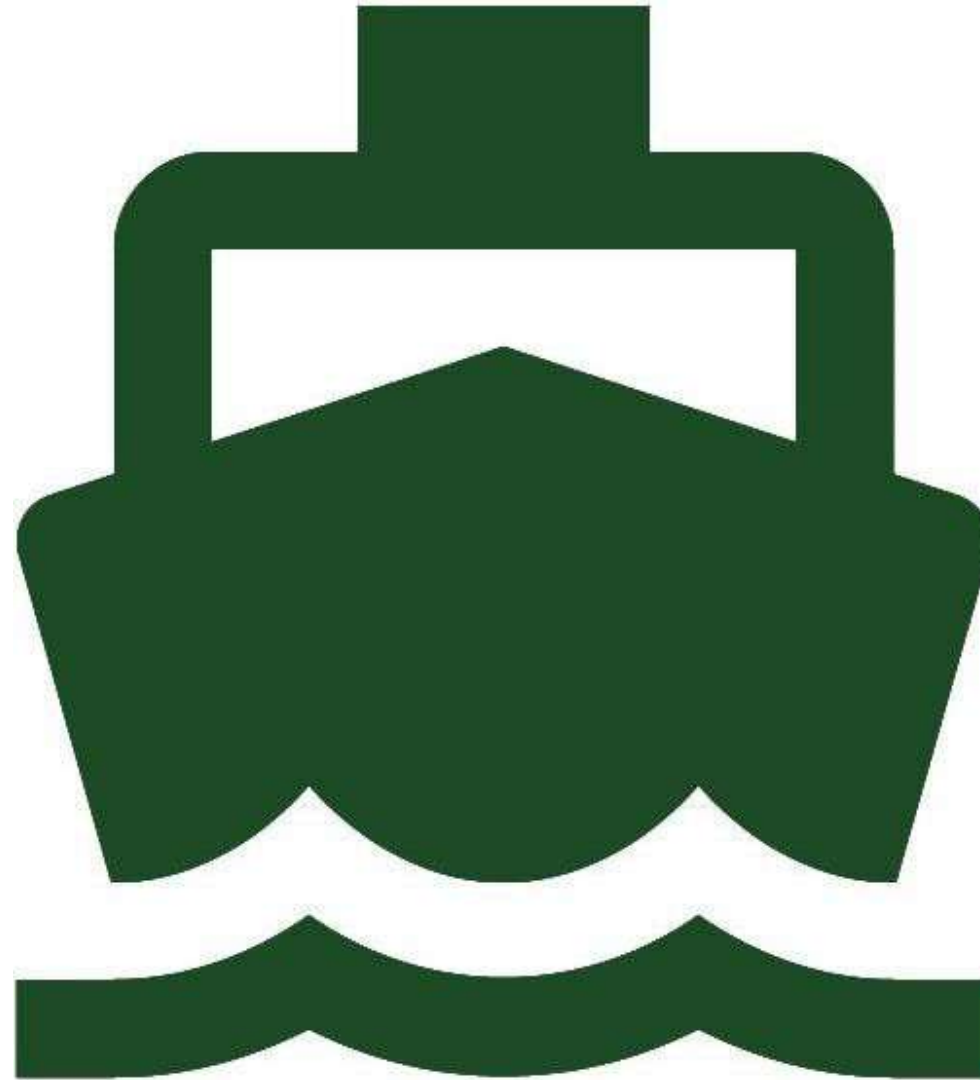


RUBBER

EXPANDED RUBBER

CO-MOULDED

RECYCLED RUBBER



RUBBER

EXPANDED RUBBER

CO-MOULDED

RECYCLED RUBBER

CORK RUBBER



DISTANCE ITEM



PAD WITH ANCORAGE PINS



GASKET



GAS MASKS



BRIDGE SUPPORTS



NAUTICAL ITEMS



RUBBER

EXPANDED RUBBER

CO-MOULDED

RECYCLED RUBBER

CORK RUBBER



BUFFERS WITH ADHESIVE LAYER



FINS



RUBBER FABRIC



SPORT FLAT CONES



MOTORCYCLE FILTER BOX SLEEVE



RUBBER

EXPANDED RUBBER

CO-MOULDED

RECYCLED RUBBER

CORK RUBBER



EXPANDED NEOPRENE & EPDM MATS



RECYCLED RUBBER MATS



CORK RUBBER MATS



CORK RUBBER ROLLS



RECYCLED RUBBER ROLLS



RUBBER

EXPANDED RUBBER

CO-MOULDED

RECYCLED RUBBER

CORK RUBBER



ENGINE SUPPORT



SIRENS FOR ALARMS



COMPONENTS



ANTI-SEISMIC BEARING



METAL TO RUBBER COMPONENTS



HOUSEHOLD-ELECTRIC ITEMS



RUBBER

EXPANDED RUBBER

CO-MOULDED

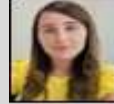
RECYCLED RUBBER

CORK RUBBER

SOGO – Contact List – www.sogo.it

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VIDEO AZIENDALE SOGO SpA – italiano: <https://www.youtube.com/watch?v=JVxbDt4pEmw>

SOGO SpA CORPORATE VIDEO – english: <https://www.youtube.com/watch?v=TuYy3V4c27U>

VIDÉO DE L'ENTREPRISE SOGO SpA – français: <https://www.youtube.com/watch?v=bkZdtl3fFhw>

VIDEO DES UNTERNEHMENS SOGO SpA – deutsche: <https://www.youtube.com/watch?v=wdWtQawj7nE>

