

TROCELLEN Air duct - General Info



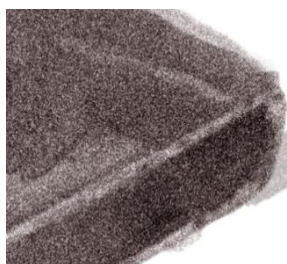
TROCELLEN AIR DUCT MADE OF PE FOAM

TROCELLEN PE foam air ducts are produced in a twinsheet process patented by TROCELLEN. The PE foam can be thermoformed into complex geometries and air ducts for diverse application areas within the vehicle can be realised. The possibility to include reinforcement ribs and different fixation methods and ... allow the construction of air ducts meeting high demands.



TROCELLEN PE FOAM AIR DUCTS - PROPERTIES

Due to the properties of the closed-cell PE foam the air ducts show excellent advantages compared to rigid plastic ducts:



- Weight reduction – up to 65 % lighter than solid air ducts
- Thermal insulation improvement – reduction of energy loss
- No condensation – bacteria reduction
- Acoustic noise reduction – less noise, no squeak & rattle
- Odourless material – no smell, no fogging
- Easy assembly – high flexibility, good restoring behaviour
- Easy production process – thermoforming and cutting

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TROCELLEN PE FOAM AIR DUCTS IN SERIAL PRODUCTION

TROCELLEN PE foam air ducts are already used in different car application areas by various car manufacturers:

Doors

- AUDI Q7
- VW T5

Pillars

- VW T5 / Colorado
- BMW 5er

Roof

- VW Crafter / VW Caravan
- Daimler Viano

Rear leg room

- MASERATI Quattroporte

Centre console

- VW Touareg
- AUDI Q7
- PORSCHE Cayenne

Instrument panel

- BMW 5
- VW Tiguan
- Alfa Romeo Giulia
- Alfa Romeo Stelvio
- Daimler S
- Renault Scenic / Space
- BMW e8
- Lamborghini

COMPARISON MATRIX- SOFT PE FOAM VS. RIGID PP AIR DUCTS

Parameter	SOFT AIR DUCT	RIGID AIR DUCT
Material	XLPE foam	PP solid
Process	twin sheet forming	blow moulding
Weight	15 - 35 %	100 %
Acoustic properties	+	-
Squeak & rattle	+	-
Thermal insulation	+	-
Fogging	+	+
Burning rate (FMVSS 302)	< 100 mm/min	< 100 mm/min
Heat resistance (° C)	-30/+105	-30/+105
Recycling	+	+
Other criteria	flexible part	highly stiff part
	easy transport	delicate transport
	easy assembly	difficult assembly
	easy sealing	
Add on parts	injection moulded cap	sealing

BUSINESS UNIT AUTOMOTIVE

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