Specification

JOPE: 821RA

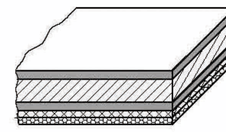
Noise absorbing shim for disc brakes

1. Composite

1.1	Cold rolled steel	EN 10139 DC 01 C 590 MA-RL
1.2	Rubber	NBR/Carbon black
1.3	PS-adhesive	Acrylic resin
1.4	Release paper	Siliconized paper PE-coated, brown

2. Dimensions and tolerances

2.1 Thickness



Rubber	0.10 ± 0.005 mm
Steel	0.38 ± 0.020 mm
Rubber	0.10 ± 0.005mm
Adhesive	0.08 ± 0.010 mm
Release paper	0.11 ± 0.010 mm
Total without paper	**0.66 ± 0.04 mm**

2.2 Width

Coil widths from 40 to 475 mm are available.

2.3 Dimensions

Internal core diameter	520 mm
Outside diameter max.	900 mm
Length max.	550 m

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3. Properties

3.1	Compressibility ASTM F36A	6 - 10 %
	Recovery ASTM F36A	60 - 80 %
3.2	Thickness increase acc. to ASTM D471	
	Fuel A, 5 h/23 °C	max. 2 %
	Oil 1, 5 h/23 °C	max. 2 %

3.3 Immersion in break fluid for 1 h/23 °C.
No swelling or delamination of rubber and adhesive.

3.4 Adhesive

3.4.1 Temperature resistance	no delamination after 1 h / 200 °C.

3.4.2 Bonding strength of adhesive to steel plate

Overlap area: 4 cm²	min. 60 N/ cm²
Connection procedure	2.5 MPa for 5 s at 200 °C (heating plate)

4. Storage life

6 months at 23°C
Higher storage temperature may cause a decrease of the adhesive tack.
This has no influence on the noise absorbing characteristics.

5. Bonding conditions

To ensure a good bond between the shim and the backing plate of the pad we advise to use the following parameters :
Temperature : room temperature
hot bonding improves slightly the adhesion.
Pressure equally applied on the shim/pad : 2 to 3 MPa
Pressing time: 5 seconds
The surface of the backing plate must be free from any contamination like oil, grease, silicone, etc. Certain additives in the protection paint on the backing plate may also affect the strength of the bond.

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