

Natural Open Cell rubber - What it is..

This first type of Sponge Rubber is made by adding a blowing agent like baking soda to the uncured sponge rubber. It then rises or expands under low pressure a little like a cake would rise. The baking Soda ten introduces a vast network of open cells.

Open Cell means every cell is interconnected with each other through an opening, so gas, air, and water can seamlessly pass from one cell to another.

Open Cell has a far better compression set than a closed cell material. This means air will rush out of the open cells whenever the material is compressed. When released air will then rush back into the cells and the material will go back to its original size. It works a little like a washing up sponge. It can be full of water. When you squeeze it after release it goes back to its original shape.

Open cell sponge can be manufactured in low or high densities. Natural open cell sponge and foam components are used across several industrial and commercial applications. In particular, natural open cell sponge rubber components can be very effective in applications where shock absorption and cushioning are needed over repeated use, such as vacuum lifting seals, low-pressure gaskets, and expansion joints.

Open Cell Sponge – material properties.....

Excellent compressibility and Recovery Resilience Absorbency Flexibility at low temperature elasticity and excellent surface adhesion Good Anti Vibration Properties



**Open Cell Sponge – What it is used for....** Industrial cushioning, sound absorption, environmental – dust & dirt seals, space fillers, mechanical vibration dampening, air filters, thermal barriers and insulating, and shock absorbing padding Die Ejection

## **Stock Grades**

100 Black - medium Density Sheet size 915mm x 915mm

Stocked thickness 6.0mm, 8.0mm, 9.5mm and 11mm (other thicknesses are available)

200 Tan - medium Density Sheet size 915mm x 915mm

Stocked thickness 8.0mm,



400 Tan - medium Density Sheet size 915cm x 1000mm

Stocked thickness 7.0mm, 8.0mm and 11mm (other thicknesses are available)



500 Red - Firm Density Sheet size 915cm x 1000mm

Stocked thickness 7.0mm, 8.0mm and 11mm (other thicknesses are available)



600 Red – Extra Firm Density<br/>Sheet size 915cm x 1000mmStocked thickness 7.0mm, 8.0mm, 11mm and 16mm<br/>(other thicknesses are available)

## **Specification Sheet**

	Product Reference Type				
	100	200	400	500	600
Property					
Elastomer / Polymer type	Natural Rubber				
Colour	Black	Tan	Tan	Red	Dark Red
Length and Width mm	915x915	915x915	915x1000	915x1000	915x1000
Density (kg/M <sup>3</sup> )	480	480	450	560	640
Shore 'A'					
Shore 'O'					
Elongation at Break (%)					
Tensile Strength (kPa)					
Compression Deflection	70 - 110	70 - 110	103 – 172	172 – 241	241 +
@ 25% (kPa) ASTM D1056					
Compression Deflection					
@ 50% (kPa) ASTM D1056					
Compression Deflection					
Change after Oven aging					
% ASTM D 1056 168hrs					
at 70 deg c					
Compression Set (50% 22h)					
ASTM D1056-00 @ 23ºc					
Compression Set (50% 22h)					
ASTM D1056-00 @ 40ºc					
Compression Set (50% 70h)					
ASTM D3574 D @ 20ºc					
Compression Set (50% 22h)	15	15	25	30	30
ASTM D3574 D @ 70ºc					
Water Absorbtion %					
Tear Resistance (N/mm)					
Temperature Range	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70
(ºC Low - High)					
Temprature High					
Intermittent <sup>o</sup> C					
Resistance to Air and UV					
Resistance to Oil					
Resistance to Acids					

*If any specific test result is required we can ask the question on the manufacturer.*