

COHRlastic® Silicone Vacuum Blanket Materials



General Purpose Silicone For Mildly Contoured Parts

High Strength & High Elongation Silicone for Complex Contours

Overview:

COHRlastic[®] Silicone Rubber from CHR[®] is compounded to provide the proper combination of tensile strength, elongation and reversion resistance for every contoured shape parts. CHR[®] Silicone rubber sheets apply even pressure over the entire part during the composite bonding cycle to *provide complete structural integrity*.

Silicone rubber is the material of choice for vacuum blankets. However compared to other elastomers, silicone rubber is relatively permeable to gas and air and requires vacuum pumping be maintained throughout the bonding cycle.

Typically, a thickness of 1.59 mm is used. The material can be clamped in place, either in a frame or to a tool, while edges are sealed by mean of a bead or silicone extrusion.

Product Description:

- General Purpose Silicones such as 9030 and 9050 provide excellent reversion resistance for longevity and are designed for mildly contoured parts.
- High Strength & High Performance Silicones such as 9235 and 9255 have higher tensile strength and elongation properties allowing them to stretch and conform repeatedly and more easily to the cavities and sharp corners characteristic of complex contours.

All these product are solid rubber of various formulations to provide the desired physical properties and are manufactured in continuous lengths. Thickness range from 0.79mm to 3.18mm and width 965mm.

Application Advantages:

- General Purpose Rubber: Reduces costs on relatively flat parts
- High Strength: Elongates & conforms exactly to parts
- **Reusable:** Saves time & money over other bagging materials
- Reversion Resistance: Maintains integrity throughout bonding cycle
- Wide Product Range: Single source for all blanket types

COHRlastic [®] Silicone Vacuum Blanket Physical Properties					
Properties	General Purpose High Value & Low Cost		High Performance		ASTM
					Test Method
Product Number	9030	***9050	***9235	***9255	
Colour	Red	Red	Grey	Grey	Visual
Durometer Shore A ±5	30	50	30	50	D2240
Tensile Strength PSI (MPa)	850	900 (6.2)	1150 (7.9)	1200 (8.3)	D412
Elongation %	500	400	800	600	D412
Tear Strength PPI (KN/m)	40	75 (13.2)	150 (26.4)	160 (28.2)	D624 Die B
Compression Set % (after 70 hours @	15	15	30	30	D395 Method B
150°C)					
Durometer Change, Points, Shore	+5	+5	+5	+10	
A**					
Tensile Strength Change %**	-10	-10	-15	-20	ASTM D2000 +
Elongation Change %**	-20	-30	-30	-30	***Fed. Spec. ZZ-R-765
Durometer Change, Points, Shore	-5	-10	-5	-5	
A**					
Tensile Strength Change %**	-10	-10	+5	0	
Elongation Change %**	-10	-5	-5	-5	
Volume Change %**	+10	+5	+5	+5	
**After dry heat aging for 70 hours @ 225°C **After immersion in ASTM oil #1 (high aniline point) for 70 hours @ 150°C					

Adhesive Flash & Tool Masking Tapes of various applications are available ex-stock based on customers' requirements and commitments. Use our patented non-toxic and non-carcinogen natural solvent for cleaning preparation to remove all soluble soils prior to bonding process.