



PROVEN • DURABLE • RELIABLE • VERSATILE
Silicone Extrusions & Mouldings



Certifications:

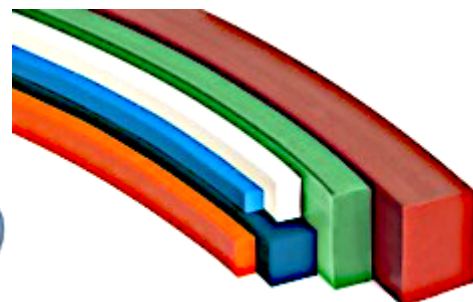
IATF16949  ISO9001  ISO13485  ISO14001  ISO50001  IIP (Investors in People)



Silicone Hoses



Silicone Round Cords



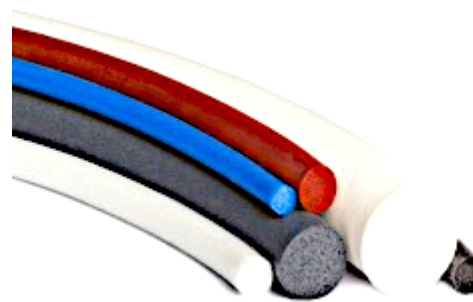
Silicone Squares



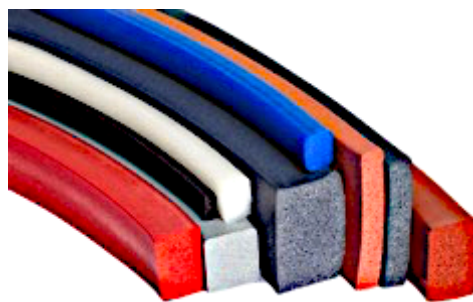
Silicone Profiles



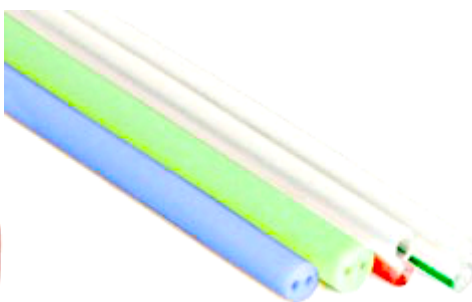
Silicone Foam Profiles



Silicone Foam Round Cords



Silicone Foam Squares



Multi-Lumen Hoses



Vulcanised Corners



Silicone Armoured Hose



Silicone Co-Extrusion



Silicone Foam Sleeves

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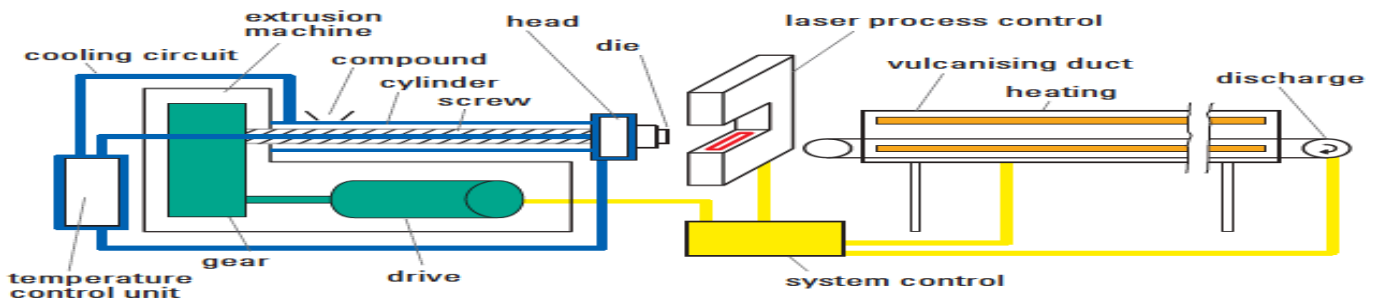
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Property of Silicone Extrusion

	Test Method	Typical	Special	Remarks
Density (g/m ³)	DIN 53479 A	1.09 – 1.22	Up to 1.75	High Density for filled compounds. Standard 1.18 g/m ³
Hardness (Shore A)	DIN 53505	30 – 80	15, 20, 90	Shore A 15, 20 and 90 are solution to critical requirement
Tensile strength (N/mm ²)	DIN 53504	5 – 12	> 11	Similar values across the whole material spectrum
Elongation at break (%)	DIN 53504	300 – 600	Up to 900	Outstanding values with platinum catalysed system and peroxide types with special tensile strength
Tear strength (N/mm ²)	ASTM D 624 B	5 – 25	Up to 45	Outstanding values with platinum catalyst and special peroxide types
Rebound resilience (%)	DIN 53512	25 – 50	Up to 75	Variable for special applications
Compression set @ 22hrs / 175°C (%)	DIN 53517	30 – 60	< 30	Compression set is dependent on operating temperatures
Dielectric strength (kV/mm)	VDE 0303	18 – 20	Up to 36	Special types available for high voltage applications
Surface resistivity (ohm)	VDE 0303	10 ¹² – 10 ¹³	-	To be observed for surface treatment
Specific contact resistance (ohm-cm)	VDE 0303	10 ¹⁵ - 10 ¹⁵	-	Insulating (Standard)
Electrical conductivity (ohm-cm)	VDE 0303	2 – 12	Up to 1,000	Electrical conductive types and compounds (for special value)
Abrasion resistance (mm ³)	DIN 53516	50 – 100	< 50	Abrasion resistance is good for unfilled compounds with high tear propagation strength
Thermal conductivity @ 100°C (W m ⁻¹ K ⁻¹)	DIN 52612	0.2 – 0.3	0.8 – 1.2	Special thermally conductive compound required for high values
Coefficient of expansion k ⁻¹	-	2-4 . 10 ⁴	-	Expansion coefficient and shrinkage depend on filler level and decrease with increasing density
Linear shrinkage (%)	-	2 – 4	-	
Gas permeability				
Air @ 20°C	DIN 53536	1.600 . 10 ⁹	-	Gas permeability of silicone is 30 – 400 times higher than in other elastomers, and increases with temperature
Air @ 60°C		3.700 . 10 ⁹		
High temperature resistance (°C) (no significant change)	-	+200	+300	High temperature resistance by using special additives, up to 200°C for all colours, up to 250°C red/brown, up to 300°C opaque & grey/blue
Cold flexibility (°C) (does not turn brittle)	-	-60	-80	High cold flexibility possible using special silicone types, translucent or pale colours
Resistance to chemical	The chemical resistance depends to a great extent on the crosslink density and the type and quantity of filler used. Watery solutions of weak lyes, acids and salts and polar liquids are not critical for silicone. On the other hand, non-polar liquids can cause relatively large swelling.			
Water vapour resistance	Silicone shows excellent resistance to boiling water and steam (increase in volume < 1%) but shows non uniform behaviour at high temperatures above 135°C. Highly elastic types (high rebound resilience, low compression set) are more suitable; special water vapour resistant types show a decrease in elongation by a quarter of the original value after approximately 2 month at 160°C.			
Weather/aging/ozone/UV resistance	Even after years of exposure to the elements, the properties of silicone only undergo minimum change. Additives are not required for improved weathering resistance. Silicone also shows excellent resistance to ozone and UV influence without significant ageing over the years.			



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