

Tufel™ II 94505

Description

Tufel II Silicone Rubber Compounds 94405, 94505, 94605, and 94705 are 40-70 durometer low volatile fast-cure addition cured silicone elastomers for molding. They may be used by themselves or blended to intermediate durometers. Applications include fabricated molding that require short cycle time, deep section cures, and parts with low extractable requirements.

Key Features and Typical Benefits

- LV Bases Minimize Post Cure Times
- Totally Peroxide-Free Cure System
- Significant Reduction in Molding cycle Times
- Lower Molding Temperature Range (150-166°C) (300-330°F)
- Superior Mixed Shelf Life
- High Tear Strength
- Tight Surface Cure
- Non-blooming
- Translucency

Typical Physical Properties

TYPICAL CHARACTERISTICS OF UNCURED TUFEL II SILICONE RUBBER - 94005 SERIES

PROPERTIES	94405	94505	94605	94705
Specific Gravity	1.11	1.15	1.19	1.23

Appearance	Translucent	Translucent	Translucent	Translucent
Polymer Classification (ASTM D-1418)	VMQ	VMQ	VMQ	VMQ

TYPICAL RHEOLOGICAL PROFILE - MONSANTO ODR WITH 3° ARC @ 150°C
(300°F)

Minimum Viscosity	1-6	2-5	2-7	2-7
T1, Minutes	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0
T1, Minutes	33-48	32-52	32-52	60-90

TYPICAL PHYSICAL PROPERTIES OF TUFEL II SILICONE RUBBER - 94005
SERIES

ASTM METHOD	PRESS CURE - 10 MINUTES @ 177°C (350°F)	94405	94505	94605	94705
D-2240	Hardness, Durometer A	40	47	57	72
D-412	Tensile Strength, psi	1320	1325	1250	1340
	MPa	9.1	9.1	8.6	9.2
D-412	Elongation, %	890	930	750	600
D-624	Tear Resistance, Die B, ppi	230	250	240	325
	KN/M	40.4	43.9	42.1	57.0
D-412	Tensile Modulus @ 100% psi	140	175	250	500
	MPa	1.0	1.2	1.7	3.4
	POST CURE 2 HOURS @ 177°C (350°F)				
D-2240	Hardness, Durometer A	43	52	62	74
D-412	Tensile Strength, psi	1390	1400	1250	1340
	MPa	9.6	9.7	8.6	9.2
D-412	Elongation, %	780	880	690	580
D-624	Tear Resistance, Die B, ppi	230	270	260	325
	KN/M	40.4	47.4	45.6	57.0
D-624	Tensile Modulus @ 100% psi	175	225	320	530
	MPa	1.2	1.6	2.2	3.7
D-395	Compression Set, % 22 hrs. @ 150°C (300°F)	20	20	23	18

Regulatory Compliance

- A representative sample of an analogous product to Tufel II 94505 met the requirements of USP Class VI and ISO 10993 under Good Laboratory Practices (GLP).
- Listed as UL 94 HB (File No. E205753)
- The ingredients are listed in the BfR recommendation XV “Silicones” ⁽¹⁾
- Compositionally compliant with 21 CFR 177.2600 – Rubber articles intended for repeated use⁽²⁾

- (1) Producer of the final article needs to test and confirm that the final product meets the extraction limits of BfR XV or corresponding EU legislation.
- (2) It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600, under their specific manufacturing procedures

Patent Status

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Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

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