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REPSIL-T (TRANSLUCENT SILICONE RUBBER)

Repsil-T is a translucent, high strength, two-part component, tin catalysed, and room temperature curing silicone rubber. It is designed as a 14 Shore A very pourable rubber providing excellent long library life and accurate detail reproduction. Repsil - T may be easily pigmented which makes it ideal for robotic animatronic skins, special effect skins and props for theme parks.

PRODUCTS FEATURES AND BENEFITS

- Translucent - easily pigmented or painted
- Excellent resistance to severe environmental exposure
- Low linear shrinkage
- High elongation and tear strength, very flexible
- Excellent long-term retention of rubber properties (library life) under dynamic use conditions.
- Shore A 12-14, soft, skin like feel, excellent photogenic qualities.

TYPICAL APPLICATIONS

- Skins for robotic and animatronic figures.
- Special effect skins and props for the film industry.
- Theme park props and reproduction moulds.

REPSIL T SILICONE SOFTENER

This translucent softener can be added to the **Repsil-T** to produce a much softer, 'flesh-like' elastomer for use in creature effects etc. Additions of up to 200% can be added to produce the desired degree of softness. Addition of silicone softener to the mix will reduce the viscosity of the mix and also extend the gel time and cure time. To speed up the cure of the system an accelerator, Silastic 81-VF curing agent, can be added.

Obviously, by adding **Repsil-T** silicone softener to the mix, the tear strength of the cured elastomer will be reduced. It is recommended that you do your own trials of varying amounts of softener and 81-VF so you get exactly the right softness that you require. Whatever the level of softener you add, always keep to the correct **Repsil-T** catalyst level as a ratio to the amount of **Repsil-T** base you use i.e. 10%. As a rough guide a soft flesh-like elastomer would be produced using the following formulation:-

- 100 parts **Repsil-T** base
- 10 parts **Repsil-T** catalyst
- 100 parts **Repsil-T** silicone softener
- 5 parts 81-VF catalyst

By using **REPSIL-T SILICONE SOFTENER** rather than just adding standard silicone fluid the amount of surface oil bleed (which can ruin paint effects) is much reduced.

TYPICAL PROPERTIES - REPSIL T

	Part A base component	Part B catalyst component
Colour	Translucent	Clear
Consistency	Very pourable	
Viscosity cP (mPas)	45,000	90

TYPICAL CATALYSED PROPERTIES

Mix at 24 C (75 F) and 50% RH

Mix ratio, A:B (parts by weight)	10:1
Viscosity, cP (mPas)	25,000
Work life, minutes ¹	60
Pot life, hours ²	4
Demould time. Hours @ RT	16

¹ Time required to double initial catalysed viscosity

² Time at which material gels

TYPICAL PROPERTIES OF CURED RUBBER

Colour	Translucent
Special gravity	1.10
Hardness (shore A) (40) ASTM D2240	14
Tensile strength, psi (N/mm) ASTM D412	450 (3.1)
Elongation (%)ASTM D412	500
Tear resistance, ppi (N/mm) ASTM D624, Die B	115 (20.0)
Linear shrinkage (%)	
24 hours	0.2
7 days	0.5
Coverage, cu in/lb (cc/kg)	25.2 (909)
Temperature range	(50°C to 150°C)

SHELF LIFE

Six (6) months from date of shipment when stored at 24 C (75 F) in original unopened containers.

Data Values: The data contained here in is reported as typical values. Values are based on actual test data and are verified on a periodic basis. **NOT FOR PRODUCT SPECIFICATION**. The technical data contained herein are intended for reference only, and **ARE NOT** intended for use in preparing specifications.

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