

Material Specification

P03 Revision B

Thermoplastic Polyurethane TPU

Material Specification					
Created: AvE	Date: 6/23/2009	Revision: B	Released: Ron C	Material Code: P03	Description: TPU

1. Scope

This document describes property requirements for a material primarily used in sealing applications.

2. Specification

Hardness	DIN 53505	95A
Hardness	DIN 53505	49D
Density	DIN 53479	1.22 g/cm ³
Tensile Strength	DIN 53504	51 N/mm ²
Ultimate Elongation	DIN 53504	440%
20% Modulus	DIN 53504	10 N/mm ²
100% Modulus	DIN 53504	12 N/mm ²
300% Modulus	DIN 53504	22 N/mm ²
Elasticity	DIN 53512	35%
Tear Strength	DIN 53507	72 N/mm ²
Abrasion	DIN 53516	28mm ³
Impact Resilience	DIN 53512	29%
Compression Set 70C 24 Hrs	DIN 53517	28%
Compression Set 100C 24hrs	DIN 53517	-
Brittle Point	DIN 53479	-
Minimum Service Temp.		-35° C
		-31° F
Maximum Service Temp.		110° C
		230° F
Maximum Service Temp. - Water		82° C
		180° F
Maximum Service Temp. - Water/Glycol		65° C
		150° F
Color		RED

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3. Test References

Abrasion	DIN 53516
Compression Set 100C 24hrs	DIN 53517
Compression Set 70C 24 Hrs	DIN 53517
Density	DIN 53479
Elasticity	DIN 53512
Hardness A	DIN 53505
Hardness D	DIN 53505
Impact Resilience	DIN 53512
Tear Strength	DIN 53507
Tensile Strength	DIN 53504
Ultimate Elongation	DIN 53504
100% Modulus	DIN 53504
20% Modulus	DIN 53504
300% Modulus	DIN 53504

4. Revisions

Revision: A
Date: 6/23/2008
Written By: AvE
Approved: RC
Date Approved 6/25/2008
Reason: Updated tensile to 51

Revision: B
Date: 6/23/2009
Written By: AvE
Approved: RC
Date Approved 6/23/2009
Reason: Updated to new format

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