TechSpecs Durethane® S



Overview

Durethane® S is the foundation of MPC's Durethane® technologies and includes our family of versatile solid polyurethane formulations. Our polyurethane chemists have been perfecting Durethane® S formulations since 1965, developing them into the reliable materials our customers have depended on for decades.



- ¹ Hardness D2240, Shore A,D ² ASTM D412
- ³ ASTM D624, DIE C
- ⁴ASTM D395B @ 158F, 22 Hours

Benefits

- · High abrasion resistance and tolerance to tight surface finishes
- Customizable physical properties to meet demanding specifications
- · Can be made into any shape component or machined to precise specifications
- FDA-compliant formulations available
- · Resistant to oils, chemicals and other challenging environments
- Can be made conductive using our patented metal salts technology

Applications

Durethane® S can be easily adapted for a wide range of applications. The superior performance of our custom-formulated solids makes them the material of choice for many mission-critical applications, including:

- Military & Defense
- Material Handling
- Medical Devices
- · Digital Imaging
- Exercise Equipment
- Wheels & Casters

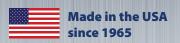


Physical Properties

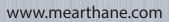
Our trade-secret formulations allow us to achieve a wide range of physical properties, including:

- Hardness range from Shore 20A to 70D1
- Elongation range from 160% to 850%²
- Tensile strength range from 250 PSI to 7800 PSI²
- Tear strength range from 30 to 800³
- Compression set range from 5% to 40%4















Physical Properties for Durethane® S Materials

Name	Hardness	Backbone	Tensile Strength	Elongation	Tear Strength	Compression Set	Available for Durethane® Standard Shapes
DS220A	Shore A or D 20A	TDI or MDI	PSI 325	% 550	DIE-C (PLI) 55	10	$\sqrt{}$
DS720A	20A	(0)	380	420	30	10	√
DS225A	25A	©	500	575	70	9	· √
DS230A	30A	©	1000	625	80	8	· √
DS330A	30A	Ö	250	160	50	8	· √
DS235A	35A	0	1500	650	100	7	√
DS335A	35A	Ö	325	170	55	7	√ ·
DS240A	40A	©	2000	675	125	6	√
DS340A	40A	Ö	425	180	60	6	V
DS245A	45A	©	2700	700	150	5	$\sqrt{}$
DS345A	45A	Ō	475	190	65	5	√
DS250A	50A	<u> </u>	3200	775	175	5	√
DS350A	50A	Ō	520	200	70	5	√
DS255A	55A	<u> </u>	3750	850	200	5	√
DS355A	55A	Ō	575	225	75	5	V
DS260A	60A	©	3750	850	200	5	N/A
DS360A	60A	0	650	250	80	10	√
DS765A	65A	(0)	2000	550	200	35	√
DS270A	70A	(b)	5000	800	250	30	V
DS370A	70A	0	2000	450	200	20	\checkmark
DS770A	70A	(0)	2500	600	240	30	V
DS275A	75A	(i)	6000	700	325	32	√
DS375A	75A	0	2200	500	225	30	V
DS775A	75A	(0)	3000	650	260	27	\checkmark
DS280A	80A	©	7000	550	400	35	√
DS380A	80A	0	3000	700	275	40	√
DS780A	80A	(0)	3500	700	300	25	V
DS390A	90A	<u> </u>	5200	430	400	32	\checkmark
DS395A	95A	0	5800	380	475	35	√
DS550D	50D		6000	350	500	35	\checkmark
DS555D	55D	o	6500	325	525	37	√
DS560D	60D	o	7000	300	600	37	√
DS570D	70D	0	7800	220	800	40	√





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