multibase
A Dow Corning Company

TPSiV™ General Technical Information

Properties		Test Method	Units	3010-50A	3010-60A	3011-60A	3011-70A	1180
Specific Gravity (23/23 C)		ASTM 792		1.12	1.2	1.2	1.2	1.09
Hardness		ASTM D 2240	Shore	52 A	65 A	65 A	71 A	52 D
Tensile Strength		ASTM D 412	MPa	7.1	16	12	16	24
Tensile Strength @ 100% Strain		ASTM D 412	MPa	--	--	--	--	19
Elongation @ Break		ASTM D 412	%	473	500	720	600	207
Flexural Modulus		ASTM D 4065	MPa	--	--	--	--	319
Tear Strength, Die B		ASTM D 624	N/mm	--	--	--	--	138
Tear Strength, Die C		ASTM D 624	N/mm	23.5	33	44	46	107
Brittleness Temperature		ASTM D 746-98	C	--	--	--	--	<-65
Flammability / Burn Test		ASTM D 635-98		--	--	--	--	HB
Compression Set @ 23C		ASTM D 395 B	%	14	12	21	23	--
Compression Set @ 70C		ASTM D 395 B	%	49	--	--	--	--
Compression Set @ 70C after annelaing		ASTM D 395 B	%	22	--	--	--	--
Compression Set @ 120C		ASTM D 395 B	%	74	70	95	95	--
Compression Set @ 120C after annelaing		ASTM D 395 B	%	53	41	66	74	--
Compression Set 22 hrs @ 23 C		ASTM D 395 B	%	--	--	--	--	70
Tensile Set (23C)		ASTM D 412 D	%					
Tensile Set (23C) 100% Elongation		ASTM D 412 D	%	5.5	6.2	10	16	--
Tensile Set (23C) 300% Elongation		ASTM D 412 D	%	20	20	37	80	--
Tensile Set (23C) @ Break		ASTM D 412 D	%	24	40	68	80	--
Abrasion Resistance		ASTM D 1044	mg loss	21	21	37	38	--
Tensile Strength after heat aging in air								
	1008 hrs. @ 120 C	ASTM D 573-99	% Change	97	6.1	18	18	--
	1008 hrs. @ 150 C	ASTM D 573-99	% Change	-44	-35	0.8	-1.8	--
	168 hrs. @ 140 C	ASTM D 573-99	% Change	--	--	--	--	1.3
	168 hrs @ 150 C	ASTM D 573-99	% Change	--	--	--	--	--
Tensile Strength after Fuel C Immersion								
	168 hrs @ 23 C	ASTM D 573-99	% Change	--	--	--	--	--
Elongation @ Break after heat aging in air								
	1008 hrs. @ 120 C	ASTM D 573-99	% Change	18	2.7	-5.4	17	--
	1008 hrs. @ 150 C	ASTM D 573-99	% Change	-36	-25	-42	-19	--
	168 hrs. @ 140 C	ASTM D 573-99	% Change	--	--	--	--	-17.7
	168 hrs. @ 23 C	ASTM D 573-99	% Change	--	--	--	--	--
Elongation @ Break after Fuel C Immersion								
	168 hrs. @ 23 C	ASTM D 573-99	% Change	--	--	--	--	--
Hardness after heat aging in air								
	1008 hrs. @ 120 C	ASTM D 573-99	Point Change	3	-5	1	2	--
	1008 hrs. @ 150 C	ASTM D 573-99	Point Change	-13	-13	-3	10	--

				3010-50A	3010-60A	3011-60A	3011-70A	1180
Properties		**Test Method**	**Units**					
Change in Tensile Strength after water immersion								
	1008 hrs. @ 100 C		% Change	4.1	--	--	--	--
	250 hrs. @ 100 C		% Change	--	4.8	9.9	-18	--
	500 hrs. @ 100 C		% Change	--	-5.6	--	--	--
Change in Elongation at break after water immersion								
	1008 hrs. @ 100 C		% Change	-2	--	--	--	--
	250 hrs. @ 100 C			--	-2	-1.7	-11	--
	500 hrs. @ 100 C			--	-2	--	--	--
Change in Hardness after water immersion								
	1008 hrs. @ 100 C		% Change	-1	--	--	--	--
	250 hrs. @ 100 C		% Change	--	-2	0	4	--
	500 hrs. @ 100 C		% Change	--	-2	--	--	--
Transmission Oil 90		1 hr. @ 60 C	% Swell	-1.6	1.1	--	--	--
SAE 30 wt. Motor Oil		1 hr. @ 60 C	% Swell	-1.8	1.2	--	--	--
Standard Grade Diesel Fuel		1 hr. @ 60 C	% Swell	8.1	7.8	--	--	--
Ethylene glycol / DIH2O @ 50/50 ratio		1 hr. @ 60 C	% Swell	0.4	1.3	--	--	--
Swell in ASTM 903 Oil		1 hr. @ 60 C	% Swell	0.6	3.4	--	--	--
Dielectric Strength @ 100 Hz		ASTM D 149	kV/mm	19	18	--	--	22.4
Dielectric Strength @ 100 Hz		ASTM D 150		4.37	4.13	--	--	4.04