

## Bonded Seal NBR Mild Steel

ASTM Designation	CHARACTERISTICS	Requirements	Results
910	<b>Physical Properties 23°C</b>		
	Hardness, ASTM D2240, Shore A	85.000 ~ 95.000	86.000 PTS
	Tensile Strength, ASTM D412, Min	10.000 MIN	14.060 MPA
	Ultimate Elongation, ASTM D412, Min	100.000 MIN	127.000%
	Modulus At 100%, ASTM D412, Min		1.200 MPA
	Specific Gravity, ASTM D297	1.310 ~ 1.370	1.360
A17	<b>Heat Resistance, ASTM D573, 70H, 100°C</b>		
	Change In Hardness	-15.000 ~15.000	3.000 PTS
	Change In Tensile Strength	-20.000 MIN	0.000%
	Change In Ultimate Elongation	-40.000 MIN	-19.000%
	Change In Volume		-1.600%
B14	<b>Compression Set, ASTM D395, 22H, M Method B, Solid, 100°C</b>		
	Compression Set	25. 000 MAX	8.000%
E014	<b>Oil Resistance, ASTM D471, ASTM 01 IL No.1, 70H, 100°C</b>		
	Change In Hardness	-5.000 ~15.000	7. 000 PTS
	Change In Tensile Strength	-25.000 MIN	12.000 %
	Change In Ultimate Elongation	-45.000 MIN	-9.000 %
	Change In Volume	-10.000 ~ 5.000	-7. 500 %
E034	<b>Oil Resistance, ASTM D471, ASTM 01 IL IRM 903, 70H, 100°C</b>		
	Change In Hardness	-20.000 ~0.000	0.000 PTS
	Change In Tensile Strength	-45.000 MIN	11.000%
	Change In Ultimate Elongation	-45.000 MIN	-7.000%
	Change In Volume	0. 000 ~ 35. 000	2.900%
EF11	<b>Fluid Resitance, ASTM D471, Reference Fuel A, 70H, 23°C</b>		
	Change In Hardness		0.000 PTS
	Change In Tensile Strength		-6.000 %
	Change In Ultimate Elongation		-7.000 %
	Change In Volume		0.800 %

Note: 1. The data is obtained by testing slab/button and are for reference only.  
2. Our compound can meet above ASTM D2000 required.

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ASTM Designation	CHARACTERISTICS	Requirements	Results
EF21	<b>Fluid Resistance, ASTM D471, Reference Fuel B, 70H, 23°C</b>		
	Change In Hardness		-13.000 PTS
	Change In Tensile Strength		-26.000%
Z1	<b>Chemical Composition, 23°C</b>		
	Carbon	0.120 MAX	0.030%
	Manganese	0.500 MAX	0.180%
	Phosphorus	0.040 MAX	0.009%
	Sulfur	0.045 MAX	0.005%
	Silicon	0.050 MAX	0.010%
Z2	<b>Physical Test, 23°C</b>		
	Hardness, RB	50.000 MIN	54.000 PTS

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 2. Our compound can meet above ASTM D2000 required.