

AL ASHWAQ RUBBER PRODUCTS IND:

PHYSICAL PROPERTIES - RUBBER COMPOUND

CONTRACT NO :				DATE :				
CONTRACTOR :				MANUFACTURER : M/s. Al Ashwaq Rubber Products				
PRODUCT NO : RBSRN-03200				FENDER SIZE : Marine Fender				
MATERIAL - RUBBER COMPOUND - REVIEW REPORT								
PHYSICAL PROPERTIES OF ELASTOMEIC RUBBER COMPOUND								
SL NO	PROPERTIES			SPECIFIED	ARP PROPOSED	LAB MEASURED	EVALUATION	REMARKS
1	Hardness	(Number)	[ASTM D 2240]	70± 5	70 ± 5	74	OK	Acceptable
2	Tensile Strength	(kg/cm ²)	[ASTM D 412]	≥85.0	90	88	"	
3	Ultimate Elongation	(%)		≥ 300.0	320	320	"	
4	Change in durometer Hardness (max)	(Points)	[ASTM D 573]	≤ +15	2	3	"	Acceptable
5	Change in tensile strength (max)	(%)		≤ -15	5	3	"	"
6	Change in ultimate elongation (max)	(%)		≤ -40	2	10	"	"
7	@ 22hrs, 100 C (max)	(%)	[ASTM D 395] Method B	≤ 35.0	< 27.0	25	OK	
8	100 pphm ozone in air by volume , 20 % strain , 37.7 ° C ± 1 C, 100 hours mounting	(-)	[ASTM D 1149]	No Cracks	No Cracks	N/M	OK	
Adhesion to Steel - (NOT REQUIRED IN THIS CASE)								
9	Bond made during vulcanization	(%)	[ASTM D429]	80.0 % R (z ₁)	80.0	N/M	OK	
	Bond Strength	(Kn/m)	[ASTM D429,A]	6.9	10.0	N/M	"	
	Peel Strength	(Kn/m)	[ASTM D429,B]	6.9	10.0	N/M	"	
10	Ultimate Breakdown (Compression)	(kg/cm ²)	[ASTM D 1752]	≥ 140.0	136.0	531.0	"	
11	Recovery	(%)		N/S	-	99.0	-	@ 40°C, 24 hrs.
12	Water Absorption	(%)	[ASTM D570]	N/S	-	0.077 0.117	-	@ 24hrs ,96 hrs respectively.
Effects of liquids								
13	Δ Diesel	(%)	[ASTM D471]	N/S	-	17.330	-	@ 96 hrs.
	Δ Detergent	(%)		N/S	-	0.270	-	@ 96 hrs.
	Δ 10% Hcl	(%)		N/S	-	-0.160	-	@ 96 hrs.
REMARKS:								