united chemical products

PRODUCT SPECIFICATION
SBR 1500

PRODUCT DESCRIPTION (SBR1500 VER. M _ ASTM) **DATE: 16 NOV. 97**

COLD MIXED SOAP STYRENE BUTADIENE COPOLYMER, 23.5 % BOUND STYRENE, WITH A STAINING ANTIOXIDANT.

RAW POLYMER PROPERTIES		
MOONEY VISCOSITY (PTS)		METHOD (**)
(ML 1+4 AT 100 ^{0}C)	50 +/- 6	ASTM D 1646-96A
VOLATILE (WT %)	0,4 MAX.	ASTM D 1416
ASH (WT %)	0,6 MAX.	ASTM D 1416
ANTIOXIDANT (WT %)	1.00 - 1.40	ASTM D 1416
SPECIFIC GRAVITY	0,92	
BOUND STYRENE (WT %)	22.5 - 24.5	ASTM D 1416
FREE ORGANIC ACIDS (WT %)	5.00 - 6.50	ASTM D 1416
ORGANIC ACIDS SOAPS (WT %), MAX.	0.20	ASTM D 1416
IRON CONTENT (WT %), MAX.	0.005	ASTM D 1416
COPPER CONTENT (WT %), MAX.	0.0002	ASTM D 1416

RHEOMETRIC PROPERTIES (1)		
MAXIMUM TORQUE, MH (IN/LB.)	38 +/- 5	ASTM 2084
TORQUE ML (IN/LB.)	8 +/- 1.5	ASTM 2084
T-90 M: S (1)	15:10 +/_ 3.5	ASTM 2084

COMPOUNDED AND OTHER TYPICAL PROPERTIES		
MODULUS AT 300 % ELONGATION, (KGF/CM^2)*, 35 MIN CURED	130	ASTM D 412
ULTIMATE TENSILE STRENGTH, (KGF/CM^2) *, 35 MIN CURED	230	ASTM D 412
ULTIMATE ELONGATION, (%), 35 MIN CURED	470	ASTM D 412

PACKAGING	
BALE WEIGHT, (KG)	30 +/- 1
FILM WRAP	50MKM +/- 5
VICAT POINT, (DEG C)	110
PALLET WEIGHT, (KG)	ABOUT 450

REMARKS

(1) RHEOMETRIC AND PHYSICAL PROPERTIES DETERMINED FOR THE COMPOUND BASED ON FOLLOWING RECIPE:

SBR 1500	100	RHEOMETER CONDITIONS
DG-100 CHANNEL BLACK	50	160^{o}C, 1 ARC, 100 CPM, MICRO DIE.
ZINC OXIDE	3	
STEARIC ACID	1	
2,2'-BENZOTHIAZOLYL DISULFIDE	3	
SULFUR	1.75	

(*) THIS SPECIFICATION REFERS TO PRODUCT FROM RUSSIAN POLYMERIZATION UNITS AND IS PRESENTED AS PER ASTM STANDARDS (AMERICAN NATIONAL BUREAU OF STANDARDS).

1MPA=10.19 KGF/CM^2 =145 PSI

1 KGF/CM^2 = 0.09807 MPA. TO CONVERT FROM KG/CM^2 TO PSI, MULTIPLY BY 14.223

REVISED: 16-NOV-2011

PREVIOUSLY REVISED: 10-AUGUST 2004, 19-FEB-99.