KUMHOKHS HSR(High Styrene Resin Masterbatch)

1. Product Introduction

KUMHO KHS is manufactured by mixing SBR latex of 23.5wt% styrene content with high styrene resin latex. It is highly resistance to abrasion, flex and tear. It can be loaded with a large amount of filler without deteriorating the physical properties, because it functions as a plasticizer at high temperature during the rubber compounding, such as milling, extruding and calendering.

KUMHO KHS is widely used for shoe soles and heels, rubber hoses, sponges, autoparts and mechanical goods.

KUMHO RM21 is a product manufactured by mixing a cold SBR copolymer containing 5.5wt% bound styrene with high styrene resin latex. It is a non-staining masterbatch containing about 21wt% of total styrene. This masterbatch provides the user with an economic advantage through faster and more uniform mixing and improved product quality, and it provides the stiffening effect in the final product. KUMHO RM is widely used for tires, footwears, sponges and other mechanical goods.

2. Product Application

Grade	Packages	Applications
KHS 68	25kg / Bale	Shoe soles and heels, Rubber hoses, Sponges Autoparts, Mechanical goods, etc
RM 21	35kg / Bale 1.05MT / Box	Tires, Footwears, Sponges, Other mechanical goods, etc

3. Handling Precautions

Exposure to direct sunlight and humidity may cause discoloration or quality deterioration. Keep the product away from direct sunlight, humidity and impurities, and store in a cool place.

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4. Typical Properties of KUMHO HSR

Grade	KHS 68	RM 21
Raw MV (ML ₅₊₄ , 100)	61	41 ^{*1)}
Appearance	Pop-corn Type	Bale
Total Styrene (%)	68	21
Stabilizer	Non-Staining	
Specific Gravity	1.00	0.92
Compound Properties	*2)	*3)
Compound MV (ML ₁₊₄ , 100)	46	79
Rheometer (160 , ARC \pm 1 $^{\circ}$)		
ML (lbf · in)	3.0	17.0
MH (lbf · in)	15.5	52.8
Ts 1 (Min.)	8.5	4.3
T' 50 (Min.)	16.8	10.2
T' 90 (Min.)	52.0	18.6
	*4)	*5)
300% Modulus (kgf/cm ²)	120	156 ^{*6)}
Tensile Strength (kgf/cm ²)	140	218
Elongation (%)	380	270
Hardness (Shore-A)	97	87

*1) ML₁₊₄, 100

*2) HSR 100, KUMHO 1502 50, ZnO 5, S/A 0.5, Accelerator DM 2.5, Accelerator TT 0.2, Sulfur 2 Total : 160.2

*3) RM21/21L 100, ZnO 3, S/A 1.5, HAF Black(IRB#7) 50, Accelerator TBBS 1, Sulfur 1.75 Total : 156.75

*4) 145 × 50 Min., Press Cured

*5) 145 × 35 Min., Press Cured

*6) 200% Modulus

NOTE) The above data are typical value; therefore, they differ slightly from the physical properties of the supplied product.

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