

<http://www.kkpc.com>



# KUMHO KTR

TPE(Thermoplastic Elastomer)

KUMHO  
PETROCHEMICAL



## | Product Description |

KUMHO KTR is a family of styrenic thermoplastic elastomers manufactured by the Korea Kumho Petrochemical Co.,Ltd. KUMHO KTR grades are linear or radial block copolymers synthesized with butadiene and styrene monomer in organic solvent. They have good tensile strength, Elasticity and processability without chemical cross-linking such as vulcanization.

## | Product Application |

KUMHO KTR grades are used in various industrial applications sectors such as footwears general compounds bitumen modification adhesives and plastics modification.

Grade	CAS NO	Packaging			Applications			
		paper bag	jumbo bag	pallet	Adhesives	Bitumen modifier	Plastic modifier	Footwears
KTR-101	9003-55-8	15	200,500	600	⊙	⊙	⊙	⊙
KTR-201		15,20		600	⊙	⊙	⊙	⊙
KTR-401		15	200,500	600		⊙		⊙
KTR-401H		15	500	600		⊙		
KTR-301	9003-55-8	20		600			⊙	⊙
KTR-302	(Naphthenic Oil : 8042-47-5)						⊙	⊙
KTR-602	9003-55-8	20	600	600	⊙		⊙	

## | Charateristics |

FIELDS	CHARACTERISTICS
Adhesives - Hot melt adhesive - Pressure sensitive adhesive	<ul style="list-style-type: none"> <li>• Low temperature property and bending property</li> <li>• Excellent transparency</li> <li>• Can be dissolved in the variety of solvents</li> </ul>
Bitumen modifier - Roofing sheet - Road paving - Sound insulation materials	<ul style="list-style-type: none"> <li>• Increase softening point of asphalt</li> <li>• Reduce the sensitivity to temperature change</li> <li>• Improve service temperature/adhesive strength</li> <li>• Possess low temperature flexibility</li> <li>• Excellent elasticity and impact resistance property</li> <li>• Extend life time of asphalt pavement</li> </ul>
Plastics modifier - TV, PC housing - Toys - Mechanical goods	<ul style="list-style-type: none"> <li>• Increase elasticity and impact property</li> <li>• Improve abrasion resistance</li> <li>• Easy colorability</li> <li>• Can be reprocessed</li> </ul>
Footwear - Shoe soles - Shoe materials	<ul style="list-style-type: none"> <li>• Increase elasticity</li> <li>• Easy colorability</li> <li>• Excellent low temperature flexibility</li> <li>• Improve abrasion resistance property</li> <li>• Low sensitivity of hardness to temperature</li> </ul>

### | Handling Precaution|

The direct expose to sunlight and heat and humidity may cause discoloration or quality deterioration.  
Keep the product away from direct sunlight, humidity and chemicals and store in a cool, dry place at temperatures below 35 °c .

### | Typical Propertise |

TYPICAL PROPERTIES

ITEM	GRADE	KTR-101	KTR-201	KTR-401	KTR-401H	KTR-301	KTR-302	KTR-602
Structure		Linear	Radial					Liner
Physical Form		Porous pellet/ Powder	Porous pellet	Porous pellet/Poeder		Porous pellet		Pellet / Porous pellet
Styrene Content (wt%)	IR	31,5	31,5	31,0	32,5	41,0	46,0	40,5
Volatile Matter (wt%)	ASTM D 1416	max, 0,75	max, 0,75	max, 0,7	max, 0,7	max, 0,7	max, 0,7	max, 0,7
Solution Viscosity in 25wt% Toluene	ASTM D 445	4,500	1,200	*1) 23,8	*1) 22	-	-	-
Melt Flow Index 200°C, 5kg (g/10min)	ASTM D 1238	< 1	6	< 1	< 1	6	*2) 9	11
Specific Gravity	ISO 2781	0,94	0,94	0,94	0,94	0,94	0,94	0,94
Tensile Strength (kgf/cm <sup>2</sup> )	ASTM D 412	min, 200	min, 200	min, 180	min, 200	min, 150	min, 160	min, 250
Hardness (Shore-A, 5sec)	ASTM D 2240	77	71	82	87	61	77	91
Extended Oil Content (wt%)	KKPC method	-	-	-	-	33,3	32,5	-

\* The above data is typical value, therefore there may be a slight difference from the physical properties of the supplied product.

\* 1) Solution Viscosity in 5,23wt% Toluene(cps)

\* 2) 190°C × 5kg (g/10min)





**KUMHO  
PETROCHEMICAL**



---

Overseas sales team

**TEL** 82-2-6303-3280~5 **FAX** 82-2-720-9742

---

Ulsan Synthetic Resin Laboratory

**TEL** 82-52-259-6050~5 **FAX** 82-52-275-6547

<http://www.kkpc.com>