

ABS High-rubber Powder

1. Product Overview

ABS High-rubber Powder is a styrene-acrylonitrile-butadiene rubber, a core-shell polymer. Kumho Petrochemical's HR181 has a rubber content of up to 60%, with strong polarity, easy coloring, and good chemical resistance. The produced ABS has high rigidity and high gloss. The general ABS produced with this high-rubber powder has a significantly increased heat distortion temperature. The ABS produced with this high-rubber powder has a high melt index, good fluidity, and easy processing.

2. Experimental Data

Item	ABS750/HR181			Recycled ABS/HR181	
Ratio	100/0	95/5	90/10	100/0	95/5
Tensile Strength (MPa)	47	44	41	42	40
Notched Impact Strength (J/M)	200	280	360	110	190
MFI (g/10min) 220°C×10kg	40	35	30	35	30

3. Applications

1. Improve the impact resistance of ABS, AS, PMMA, PVC, and improve the impact strength of recycled ABS;
2. When used with compatibilizers, it can prepare high-impact reinforced materials such as ABS+GF, AS+GF;
3. Improve the ductility of ABS and PVC, which is conducive to post-processing such as thermoforming and blow molding;
4. Improve the impact resistance of PC and PC/ABS, especially the impact strength of thick products at low temperatures, and the cracking phenomenon caused by fillers, pigments, and inserts;
5. When used with compatibilizers, improve the low-temperature impact strength and dimensional stability of PBT and PET;
6. Improve the crack resistance of epoxy resin, improve the tear strength of TPU, and reduce the molding shrinkage of TPU;

7. Core-shell structure, the rubber particle size is pre-designed, the grafted shell improves the compatibility, improves the hardness, and compared with the simple blending of elastomers, it has better dispersion, and the adverse effects on tensile strength, heat deformation temperature, and flexural modulus are greatly reduced;
8. Improve the printing performance, paintability, and electroplating performance of PC;
9. Excellent low-temperature impact strength;
10. Excellent coloring performance.