

Elastoflex[®] AR 23-1



Elastoflex[®] AR23-1 is an Aramid fiber masterbatch in Natural Rubber carrier which contains 23% Aramid fiber content.

Processing Guidance

Adding Elastoflex[®] AR23-1 in the same step of adding polymers. Other steps can be used as normal practices of current compound mixing steps.

However in the Elastoflex[®] AR23-1 contains 50% of Natural Rubber so have to balance Natural Rubber content in the formulation eg. For 4 phr.* of Elastoflex[®] AR23-1 (1 phr.* Aramid fiber) has 2 phr.* of Natural Rubber. The 2 phr.* of Natural rubber has to be reduced in the formulation.

Formulation	No Aramid	Aramid 1 phr	Aramid 3 phr
NR/BR	75/25	73/25	69/25
Elastoflex AR23-1	0.0	4.0	13.0
Silica/Carbon black	35/30	35/30	35/30
Aromatic Oil	5.0	5.0	5.0
Anti-Ozonant	2.0	2.0	2.0
Sulphur powder	2.5	2.5	2.5
TBBS	1.5	1.5	1.5

Test Results	Test Method	No Aramid	Aramid 1 phr	Aramid 3 phr
Hardness, Shore A	JIS K6253	72	73	76
Tensile strength, kgf/cm ²	JIS K6251	265	228	220
Elongation, %	JIS K6251	530	465	450
M100, kgf/cm ²	JIS K6251	38	43	55
M200, kgf/cm ²	JIS K6251	82	84	94
M300, kgf/cm ²	JIS K6251	137	137	143
Tear strength, kgf/cm	JIS K6252	73	78	87
SG	JIS K6268	1.178	1.178	1.178
Tanδ@0°C	-	0.257	0.246	0.240
Tanδ@60°C	-	0.181	0.169	0.174

*phr = part per hundred rubber

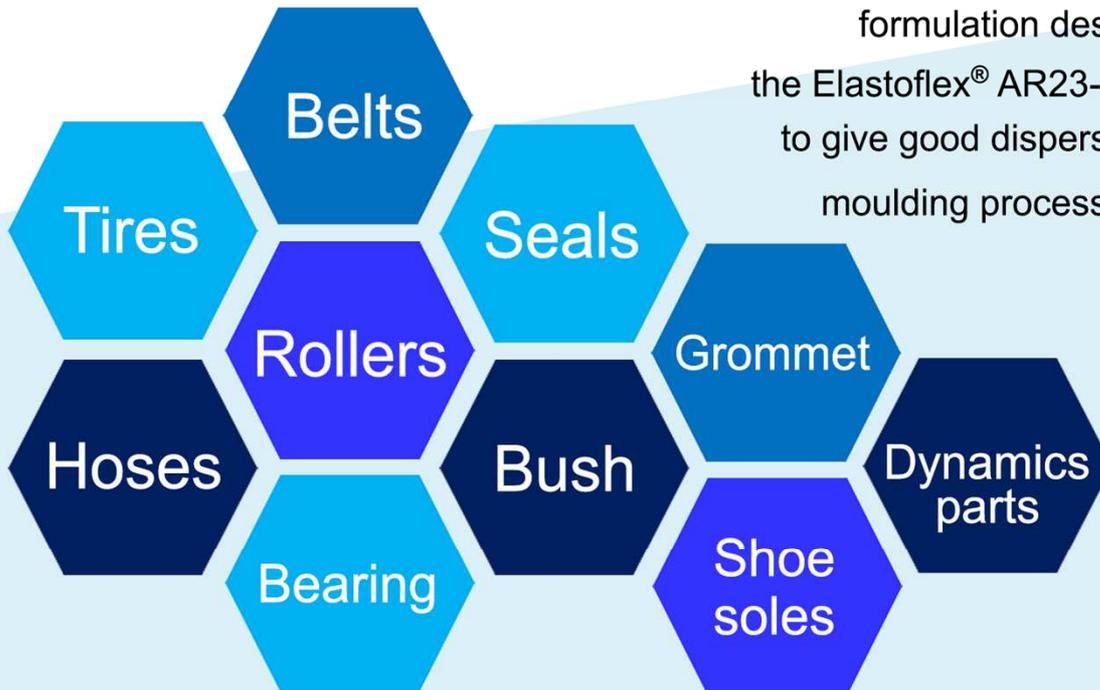


Elastoflex[®] AR23-1

Adding 4-13 phr. of Elastoflex[®] AR23-1 (1-3 phr of Aramid fiber) has been shown modulus and tear resistance increasing while lowering of $\tan \delta$.

The property can improve performance of end products and give longer life services of end applications.

APPLICATION



BENEFIT

The high strength of Aramid fiber gives excellent reinforcing performance in rubber compounds. With the superb mixing technology and long experienced in rubber compounds formulation design of Innovation Group, the Elastoflex[®] AR23-1 is mixed and designed to give good dispersion, improve mixing and moulding process of the final compounds.

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