

BASF Elastollan C Series



The Elastollan C Series is a polyester-based TPU system utilised by PolyGlobal for injection moulded products and solutions. Within the range are a broad range of hardness options offering diverse manufacturing capabilities.

The C Series is designed for applications in tough environments. It is also used extensively within the automotive industry due to its outstanding damping properties. Specific grades carry OEM approval. Key performance characteristics and advantages of the C series are:

- ✓ Excellent oil & fuel resistance
- ✓ Good mechanical properties
- ✓ Excellent abrasion resistance
- ✓ Good hydrolytic stability
- ✓ Excellent damping properties
- ✓ Resistance to high temperatures

Grade	UoM	C60A	C70A	C75A	C78A	C85A	C90A	C95A	C98A	C59D
Hardness (Shore A)		63	71	75	80	85	90	95	-	-
Hardness (Shore D)		-	-	-	-	-	41	46	52	56
100% Modulus	MPa	2.6	3.1	4.1	5	6.6	10	13	15	17
300% Modulus	MPa	-	-	-	8	10	15	22	26	30
Tensile Strength	MPa	23	30	42	37	39	41	40	50	52
Elongation at Break	%	870	790	770	690	620	550	480	550	480
Compression Set 72h/23°C	%	-	-	-	25	25	25	30	30	30
Abrasion Loss	mm ³	-	-	50	25	25	25	35	-	45

Definition of Terms	
100% Modulus	The force needed to stretch a material to twice its original length
300% Modulus	The force needed to stretch a material to four times its original length
Tensile Strength	The force needed to stretch a material until it breaks
Elongation at Break	How much a material can stretch before it breaks, as a % of its original dimensions
Compression Set	How much the material will take on permanent deformation when under compression. The lower the % the less deformation.
Resilience	The ability of a material to absorb energy when it is deformed elastically and release that energy upon unloading. Its ability to bounce as a % of the height it was dropped from. The higher the % the higher the bounce.
Abrasion Loss	A materials ability to resist abrasion. Lower figures indicate a higher resistance to wear.
Hardness	The resistance of a material to indentation.