

COVESTRO Desmodur® MDQ45163 & Baytec® D45MF



PolyGlobal's MDI-polyester based system offers manufacturing options in a range of shore hardnesses from 55 Shore A (soft) to 55 Shore D (hard). Please see also PolyGlobal's Ether based alternative.

Desmour® MDI-ester systems are used in scrapers, couplings, buffers, squeegees, screens, vibratory bowls and many other demanding applications. This material is utilised significantly within the construction and material handling sectors and is also available in sheet and rod form. Key characteristics and advantages of this range are:

- ✓ Good abrasion
- ✓ Good tear resistance
- ✓ Excellent chemical resistance
- ✓ Resistance to internal heat build up
- ✓ Good mechanical properties at high temperatures

Hardness (Shore)		55A	60A	65A	70A	75A	80A	85A	90A	95A	55D
100% Modulus	MPa	2.0	2.5	3.1	3.6	4.5	5.3	7	9.7	14	16.2
300% Modulus	MPa	3.5	4.9	6.5	7.5	9.6	11.4	13.7	17.9	21.6	24.2
Tensile Strength	MPa	41	44	45	46	46	47	47	48	40	34
Elongation at Break	%	600	600	550	550	500	500	500	500	500	500
Compression Set 22h/70°C	%	24	26	26	26	28	28	28	28	35	-
Resilience	%	45	43	40	35	33	32	30	30	37	37
Abrasion Loss	mm <sup>3</sup>	55	55	45	45	45	45	45	45	45	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.
DIN Abrasion	A materials ability to resist abrasion. Lower figures indicate a higher resistance to wear.
Hardness	The resistance of a material to indentation.