



WILLIAM JOHNSTON & COMPANY LIMITED

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Polyurethane Shore hardnesses from 55 Shore A (soft) to 55 Shore D (hard).

COVESTRO Desmodur MDQ45163 & Baytec D45MF

Used in scrapers, couplings, buffers, squeegees, screens, vibratory bowls

- ✓ 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 ³	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.

Disclaimer

Please note, failure to select the correct materials or products we supply ("the Products") may result in damage to plant, equipment or property. In some instances, it may cause death or personal injury. We are not designers and do not give advice about design related matters concerning the Products. We can help and assist with the technical specifications for the Products. In specific applications, particularly where critical conditions exist, we will try to assist you within the limitations of the services that we offer. All information supplied by us is intended as technical co-operation outlining the specifications of the different Products which we supply. To the extent permitted in law, no warranty is given in respect of any information supplied by us. The customer must satisfy themselves as to the suitability of the Products for their intended application and use. The correct fitting of Products is the responsibility of the customer. Your statutory rights remain unaffected. Save in respect of death, personal injury or fraud, our entire liability to you, however arising from the supply of Products shall be limited to the £10M indemnity amount provided by our insurers.