

Compression Deflection Hardness Chart

Cellular Materials

Approximate Hardness Value
(to be used as a guide)

Type	Super Soft (Slice of Bread)	Soft (Pillow)	Soft Medium (Mattress)	Medium (Tennis Ball)	Medium Firm (Styrofoam Cup)	Firm (Life Preserver)
Shore OO Density	20 - 50	50 - 70	70 - 80	80 - 90	80 - 98	---

Type	Super Soft (Slice of Bread)	Soft (Pillow)	Soft Medium (Mattress)	Medium (Tennis Ball)	Medium Firm (Styrofoam Cup)	Firm (Life Preserver)
Compression Deflection	0.5 - 2 PSI	2 - 5 PSI	5 - 9 PSI	9 - 13 PSI	13 - 17 PSI	17 -25 PSI

ASTM D6576 / ASTM D 1056 Grade Number (Open Cell)

Class A Non-Oil Resistant	1A0	1A1	1A2	1A3	1A4	1A5
Class B Oil Resistant, Low Swell	1B0	1B1	1B2	1B3	1B4	1B5
Class C Oil Resistant, Med. Swell	1C0	1C1	1C2	1C3	1C4	1C5

ASTM D6576 / ASTM D 1056 Grade Number (Closed Cell)

Class A Non-Oil Resistant	---	2A1	2A2	2A3	2A4	2A5
Class B Oil Resistant, Low Swell	---	2B1	2B2	2B3	2B4	2B5
Class C Oil Resistant, Med. Swell	---	2C1	2C2	2C3	2C4	2C5

*Compression Deflection is the force required to compress a standard test sample 25%