

Table 1: Pugh Matrix

Requirement	Weight	Auxetic		Compliant		Chiral		Shear		Shear & Rigid		Flex-16	
		R	S	R	S	R	S	R	S	R	S	R	S
Range of Motion (Bending)	40%	6	2.4	7	2.8	1	0.4	10	4	0	0	10	4
Range of Motion (Compression)	5%	6	0.3	8	0.4	1	0.05	5	0.25	0	0	8	0.4
Off-Center	10%	9	0.9	1	0.1	10	1	1	0.1	10	1	8	0.8
Coupling Motion	15%	8	1.2	5	0.75	10	1.5	5	0.75	10	1.5	6	0.9
Axial Stiffness	10%	6	0.6	7	0.7	7	0.7	6	0.6	10	1	7	0.7
Lateral Stiffness	10%	4	0.4	7	0.7	7	0.7	6	0.6	10	1	10	1
Self-contact	10%	1	0.1	10	1	10	1	10	1	10	1	5	0.5
<b>Total Score</b>	100%	5.9		6.45		5.35		7.3		5.5		<b>8.3</b>	