

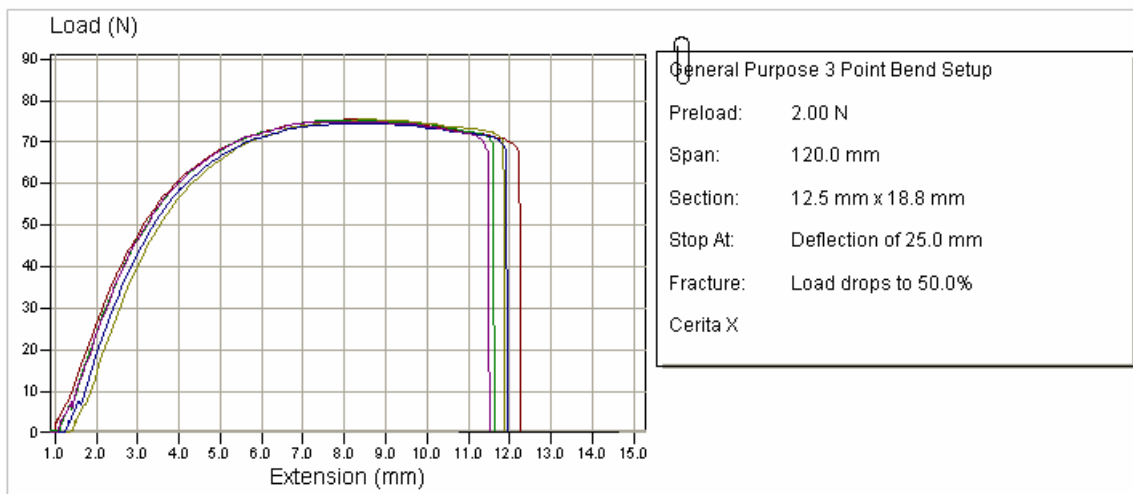


Mechanical Properties (Argüeso three point bend method)

Sample:	Cerita X	Strain (%) =	90.4
Height (mm):	12.5	Stress =	4.61
Width (mm):	18.8	Strain =	0.0372
Span (mm):	120	MOR/MOE =	0.0064
Test temp (°C):	22	MOR²/MOE =	0.0148
Cross head speed (mm/min):	40		

Sample	Max Load (N)	Max Deflection (mm)	Max Bending Stress at Max Load (N/m ²)	Max Bending Strain at Max Load	Maximum Bending Strain at Maximum Deflection	Maximum Bending Stress at Maximum Deflection (MPa)	Young's Modulus of Bending (MPa)
1	75.4382	11.9199	4.6226	0.0378	-0.0554	0.0621	332.9414
2	75.4912	11.1804	4.6258	0.0381	-0.0408	0.0582	374.5141
3	75.4926	11.0683	4.6259	0.0362	-0.0260	0.0576	373.8408
4	74.6498	11.3005	4.5743	0.0372	-0.0421	0.0589	369.2784
5	75.1467	11.0338	4.6047	0.0370	-0.0438	0.0575	345.8557
Average =	75.2437	11.3006	4.6107	0.0372	-0.0416	0.0589	359.2861

Sample	Flexural Rigidity (Nm ²)	Elastic Strength (MPa)	Resilience (J)	Ductility (mm)	Toughness (N/mm ²)	Modulus of Rupture (N/mm ²)	Secant Modulus (MPa)
1	1.0188	1.6636	0.0138	11.2370	0.0249	2.3113	--
2	1.1460	1.1026	0.0058	10.4816	0.0231	2.3129	--
3	1.1439	1.2181	0.0071	10.4009	0.0229	2.3130	--
4	1.1300	1.3050	0.0082	10.6192	0.0233	2.2871	--
5	1.0583	1.1799	0.0071	10.3705	0.0227	2.3024	--
Average =	1.0994	1.2938	0.0084	10.6218	0.0234	2.3053	--



The mechanical properties of a wax blend are critical. A softer, more flexible wax may distort during processing whilst a harder, more brittle blend may be prone to breakage or chipping.

Argüeso's development laboratory uses a three point bending technique to fully characterise these vital behaviours.

Numeric & graphical output help in determining which blend will work best in your process.

