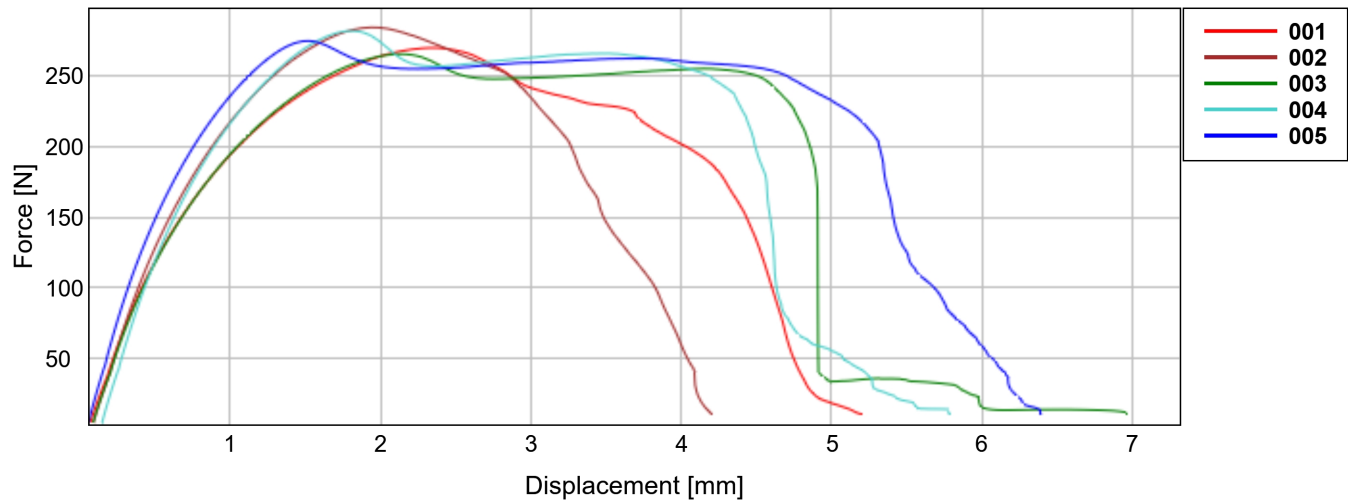
**Ultimaker**

Ultimaker - Tensile test report

Last test date	06 July 2021
Method description	<p>Constant rectangular section specimen with an interlocking interface between two materials in the middle.</p> <p>Cross section width and height are different for each sample.</p> <p>Designed by Tim Kuipers. Modified by Mario Looijer</p>
Sample ID	20210701-S5-TplaPP-XY Flat-J1-5
Material	PP and Tpla
Color	Natural and Green
Temperature	21.2 C
Humidity	38.0 %
Type of Grips	Std Non Centred Grips
Preload	True
Rate	1.00 mm/min
Value	5.00 N
Changeover value (1 to 2)	0.25 %
Measurement (1 to 2)	Tensile strain (Displacement)
Rate 1	1.00 mm/min
Rate 2	5.00 mm/min
Fixture separation	43.00 mm
Sample note 1	

Specimen 1 to 5



	Specimen label	Thickness [mm]	Width [mm]	Area [mm ²]	Weight [g]
1	001	5.000	15.000	75.000	12.0000
2	002	5.000	15.000	75.000	12.0000
3	003	5.000	15.000	75.000	12.0000
4	004	5.000	15.000	75.000	12.0000
5	005	5.000	15.000	75.000	12.0000
Mean		5.000	15.000	75.000	12.0000
Standard deviation		0.000	0.00	0.00	0.00
Maximum		5.000	15.000	75.000	12.0000
Minimum		5.000	15.000	75.000	12.0000

	Specimen label	Force at Maximum Tensile stress [N]	Force at Break (Standard) [N]	Elongation at Maximum Tensile stress [%]	Tensile stress at Break (Standard) [MPa]	Elongation at Break [%]	Yield Strength [MPa]	Elongation at Yield [%]
1	001	270.410	10.267	5.28	0.14	11.90	3.61	5.28
2	002	284.951	10.719	4.30	0.14	9.53	3.80	4.30
3	003	265.971	11.455	4.79	0.15	15.95	3.55	4.79
4	004	282.426	13.139	3.87	0.18	13.05	3.77	3.87
5	005	275.295	13.276	3.39	0.18	14.70	3.67	3.39
Mean		275.811	11.771	4.33	0.16	13.03	3.68	4.33
Standard deviation		7.962	1.379	0.75	0.02	2.49	0.11	0.75

	Specimen label	Force at Maximum Tensile stress [N]	Force at Break (Standard) [N]	Elongation at Maximum Tensile stress [%]	Tensile stress at Break (Standard) [MPa]	Elongation at Break [%]	Yield Strength [MPa]	Elongation at Yield [%]
Coefficient of variation		2.887	11.714	17.24	11.71	19.13	2.89	17.24
Maximum		284.951	13.276	5.28	0.18	15.95	3.80	5.28
Minimum		265.971	10.267	3.39	0.14	9.53	3.55	3.39