



TGP8000PT COMPRESSION TEST

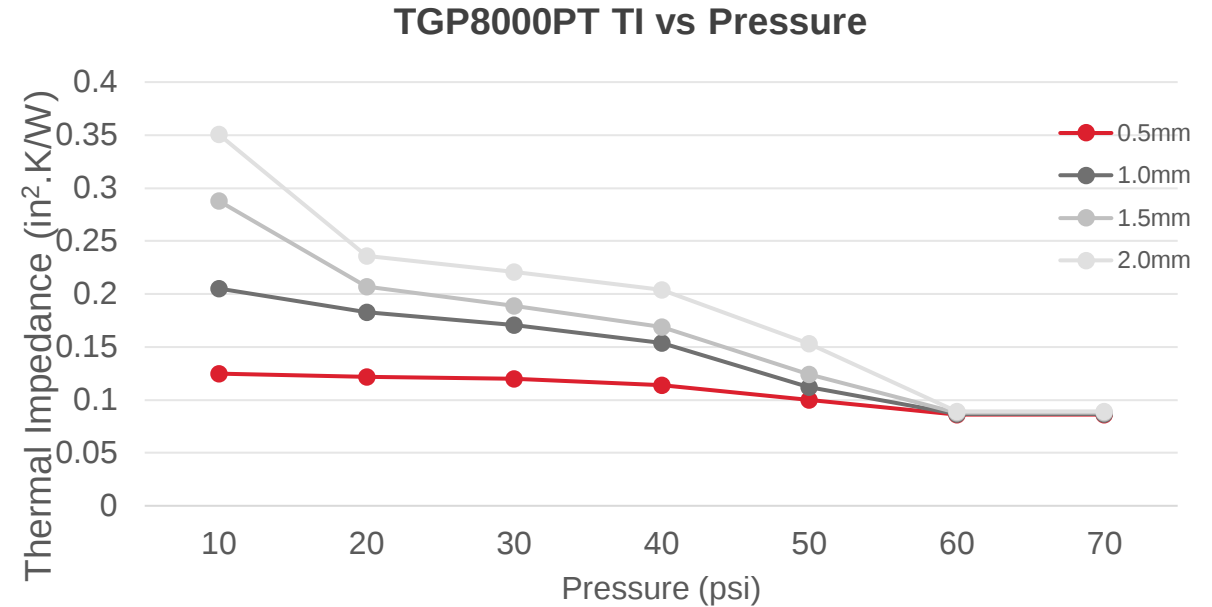
June 11, 2024

Honeywell

TI VS PRESSURE

Test description for TI vs pressure

- Test standard: ASTM D5470
- Test temperature: 50°C
- Test pressure: 10 psi to 70 psi
- Size of specimen: 1 inch²



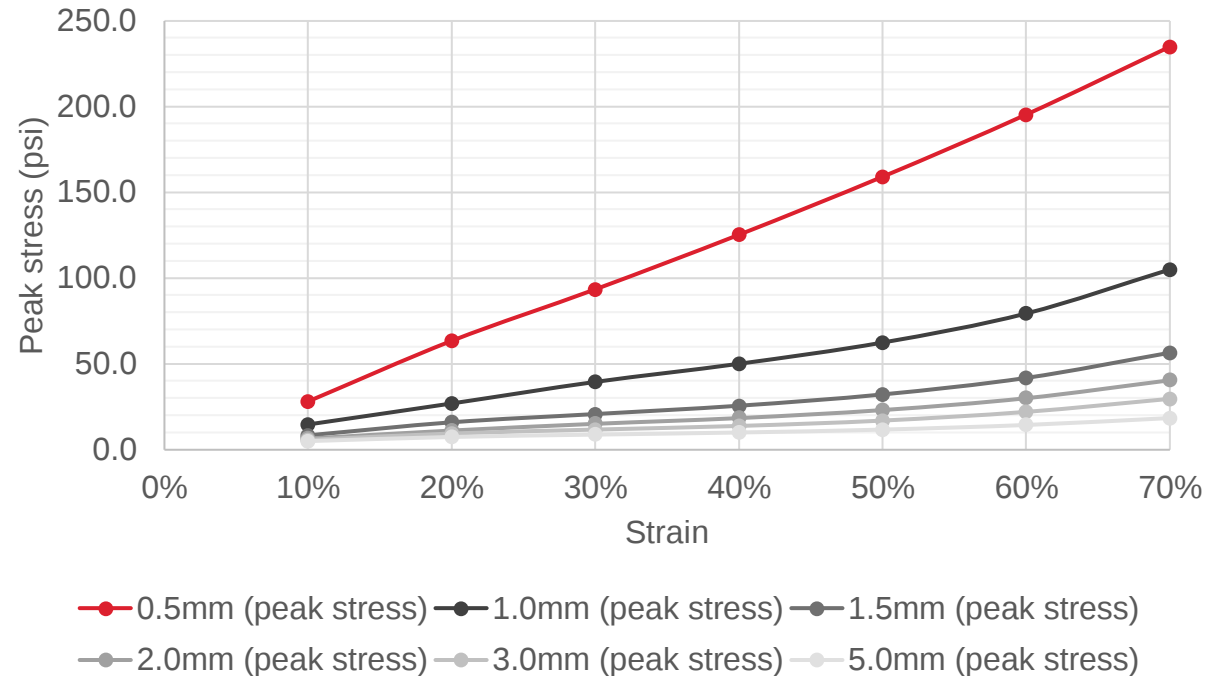
Sample thickness	TI vs Pressure (in².K/W)						
	10 psi	20 psi	30 psi	40 psi	50 psi	60 psi	70 psi
TI (0.5mm)	0.125	0.122	0.12	0.114	0.1	0.086	0.086
TI (1.0mm)	0.205	0.183	0.171	0.154	0.112	0.087	0.087
TI (1.5mm)	0.288	0.207	0.189	0.169	0.124	0.088	0.088
TI (2.0mm)	0.351	0.236	0.221	0.204	0.153	0.089	0.089

COMPRESSION PERFORMANCE (PEAK STRESS)

Test description for strain-stress

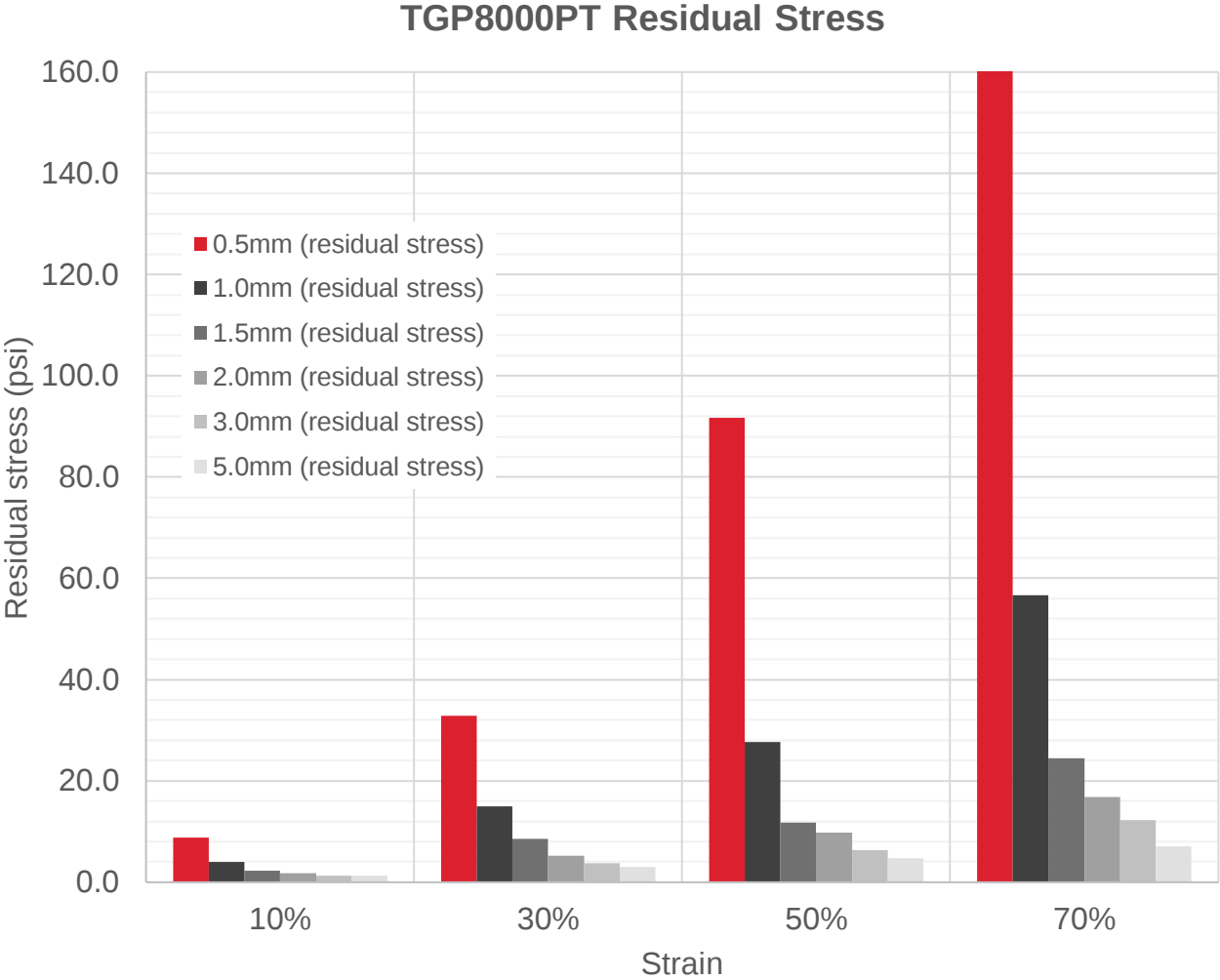
- Test standard: ASTM D575
- Test head: 25x25mm, square
- Size of specimen: 25x25mm
- Thickness of specimen
 - 0.5 mm
 - 1.0 mm
 - 1.5 mm
 - 2.0 mm
 - 3.0 mm
 - 5.0 mm
- Compressing speed: 0.6mm/min
- Keeping time for residual stress: 5 min
- Test temperature: 25°C

TGP8000PT Strain-Stress Performance



	Strain-Stress (psi)						
	10%	20%	30%	40%	50%	60%	70%
0.5mm (peak stress)	27.9	63.2	93.3	125.1	158.9	195.1	234.6
1.0mm (peak stress)	14.5	26.7	39.3	49.9	62.3	79.2	104.8
1.5mm (peak stress)	8.1	15.7	20.5	25.4	32.0	41.6	56.3
2.0mm (peak stress)	6.4	11.1	15.0	18.4	23.0	30.0	40.4
3.0mm (peak stress)	5.5	9.2	11.5	13.6	16.7	21.8	29.4
5.0mm (peak stress)	4.8	7.2	8.6	9.8	11.5	14.2	18.2

COMPRESSION PERFORMANCE (RESIDUAL STRESS)



	TGP8000PT Residual Stress (psi)			
	10%	30%	50%	70%
0.5mm (residual stress)	8.7	32.9	91.7	174.5
1.0mm (residual stress)	4.0	15.0	27.6	56.7
1.5mm (residual stress)	2.3	8.5	11.7	24.4
2.0mm (residual stress)	1.7	5.3	9.8	16.8
3.0mm (residual stress)	1.2	3.8	6.3	12.2
5.0mm (residual stress)	1.2	3.0	4.7	7.1