

Supporting Information: Diffusion Phenomena of Fluorinated Thermoplastic Blends in Fused Deposition Modeling

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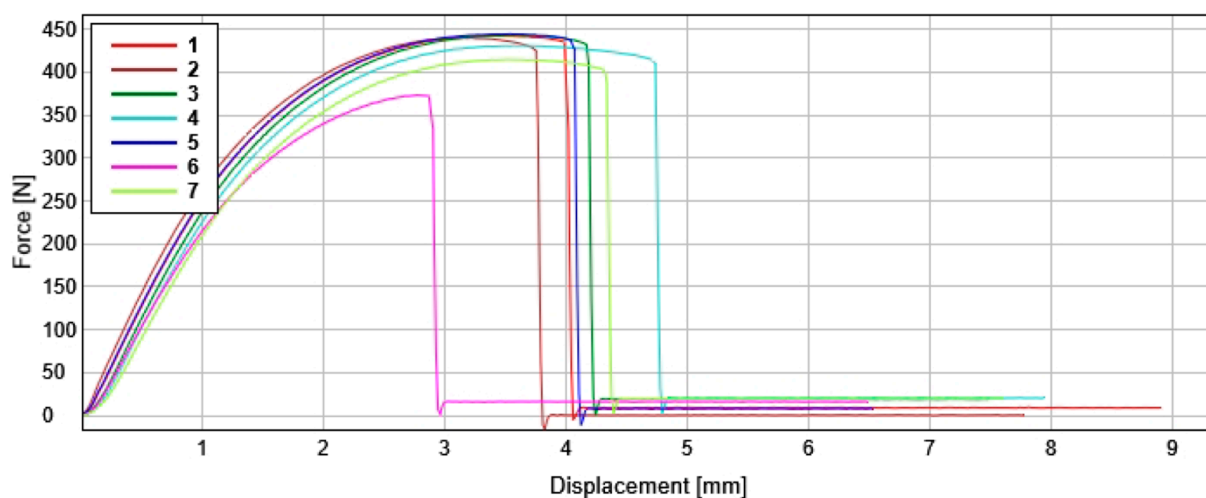


Figure S1. Stress-strain curves for 3D-Printed PMMA0

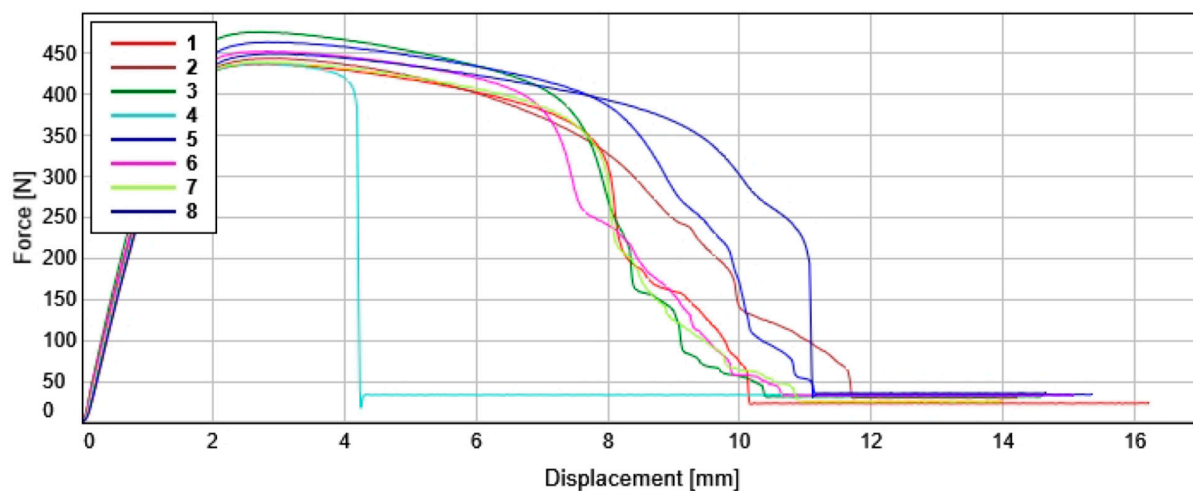


Figure S2. Stress-strain curves for 3D-Printed PMMA15

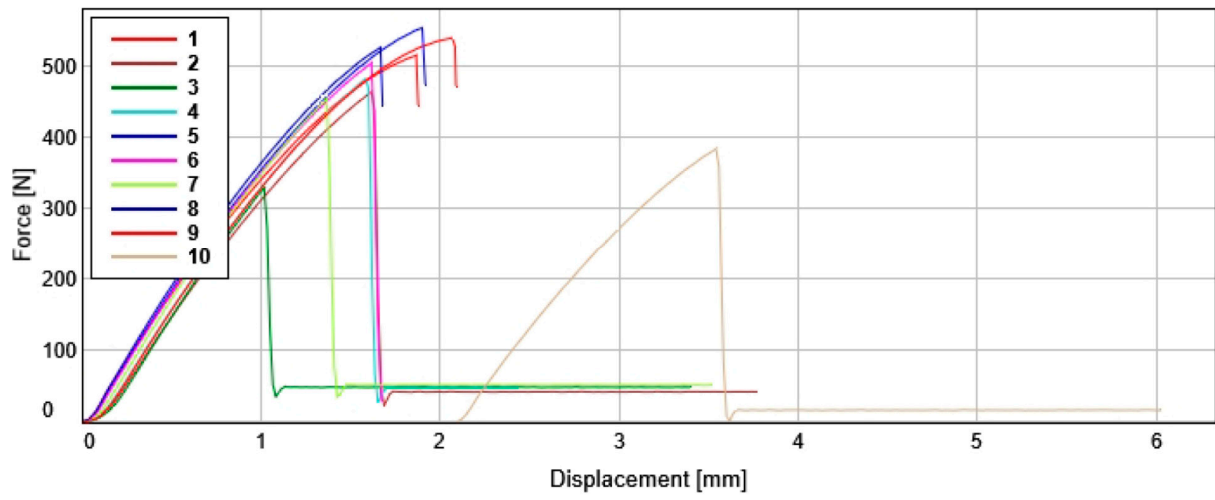


Figure S3. Stress-strain curves for 3D-Printed PMMA25

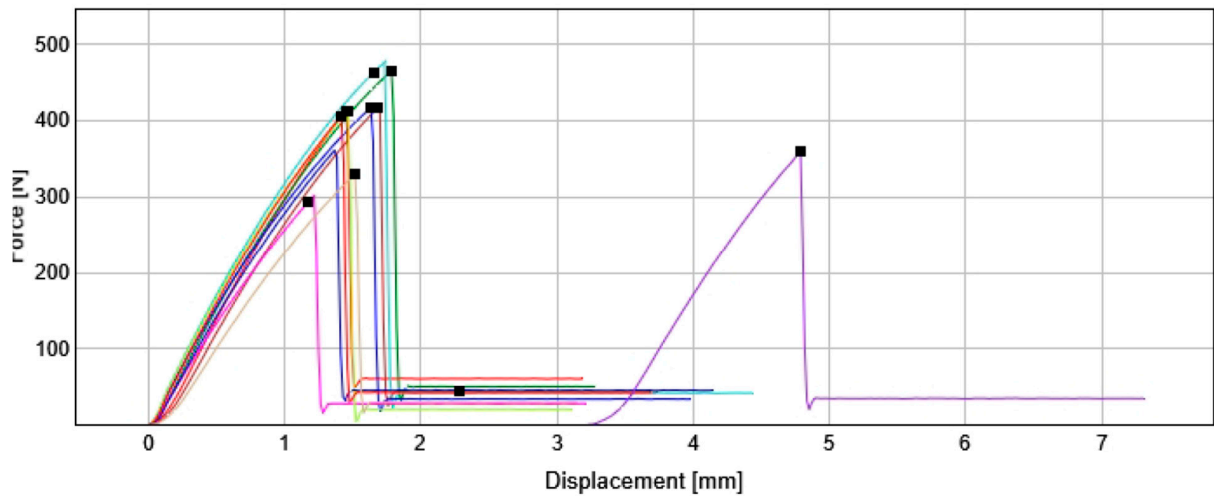


Figure S4. Stress-strain curves for 3D-Printed PMMA50

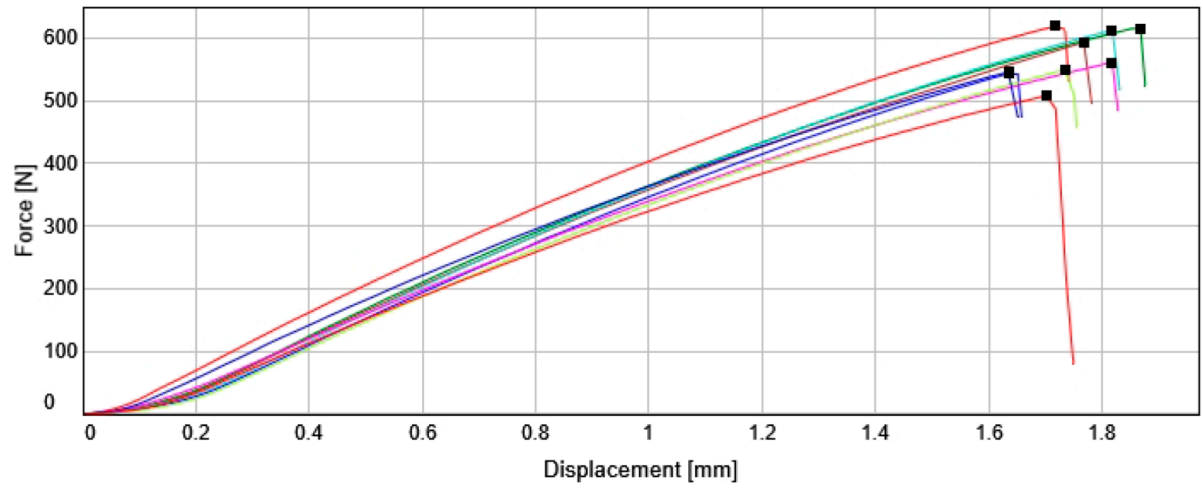


Figure S5. Stress-strain curves for 3D-Printed PMMA75

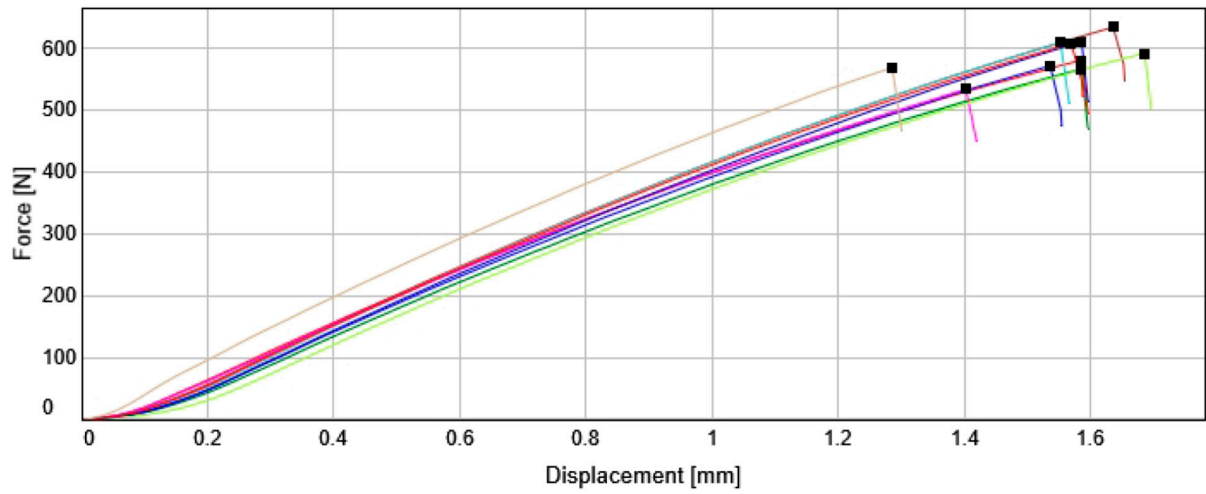


Figure S6. Stress-strain curves for 3D-Printed PMMA85

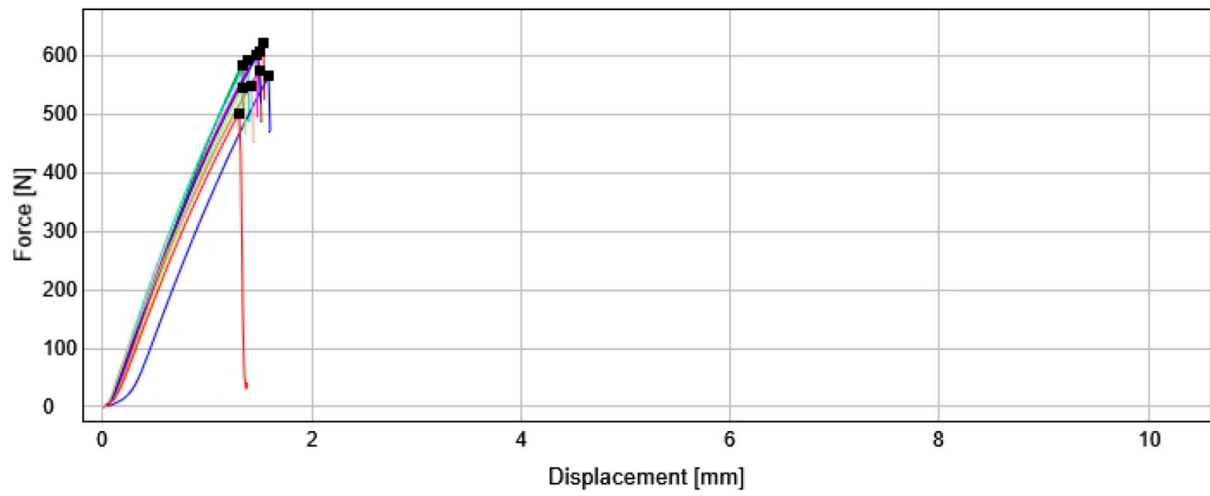


Figure S7. Stress-strain curves for 3D-Printed PMMA100

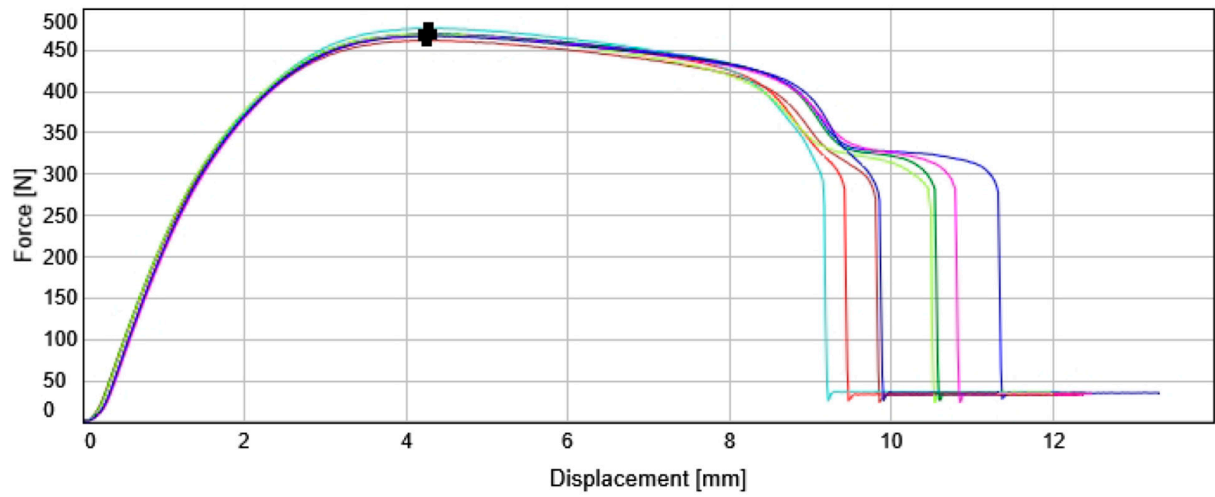


Figure S8. Stress-strain curves for Injection-Molded PMMA0

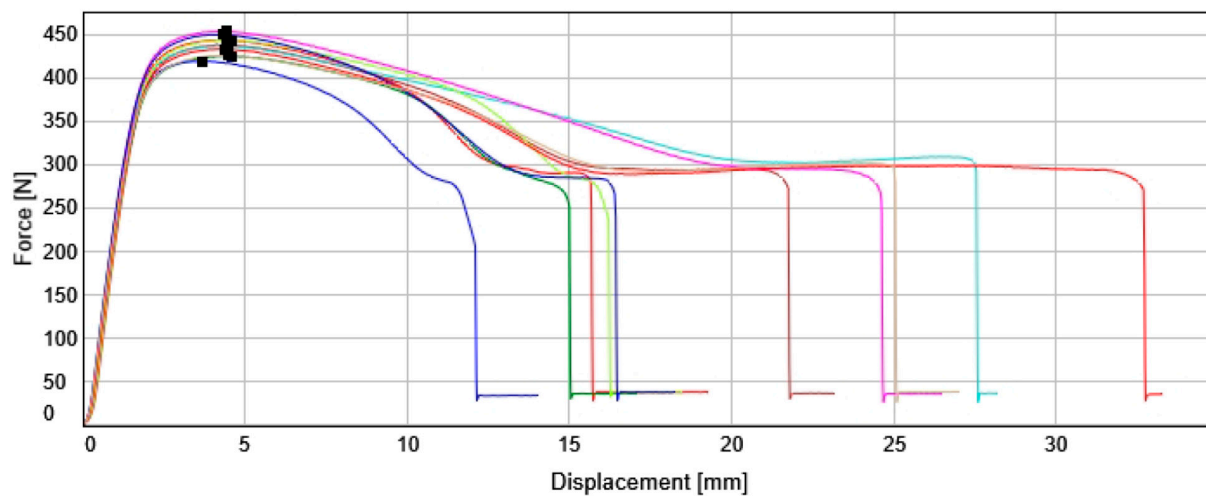


Figure S9. Stress-strain curves for Injection-Molded PMMA15

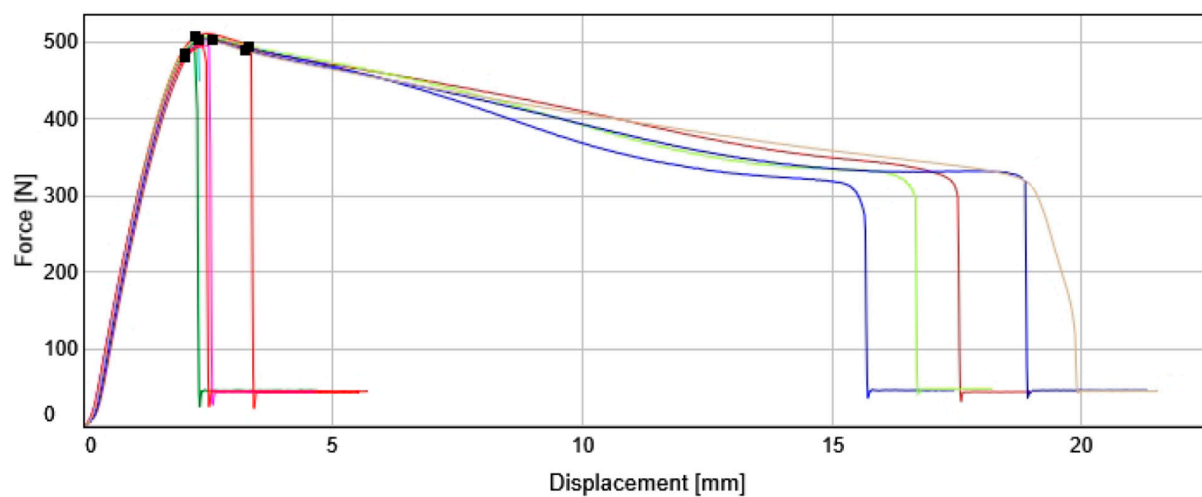


Figure S10. Stress-strain curves for Injection-Molded PMMA25

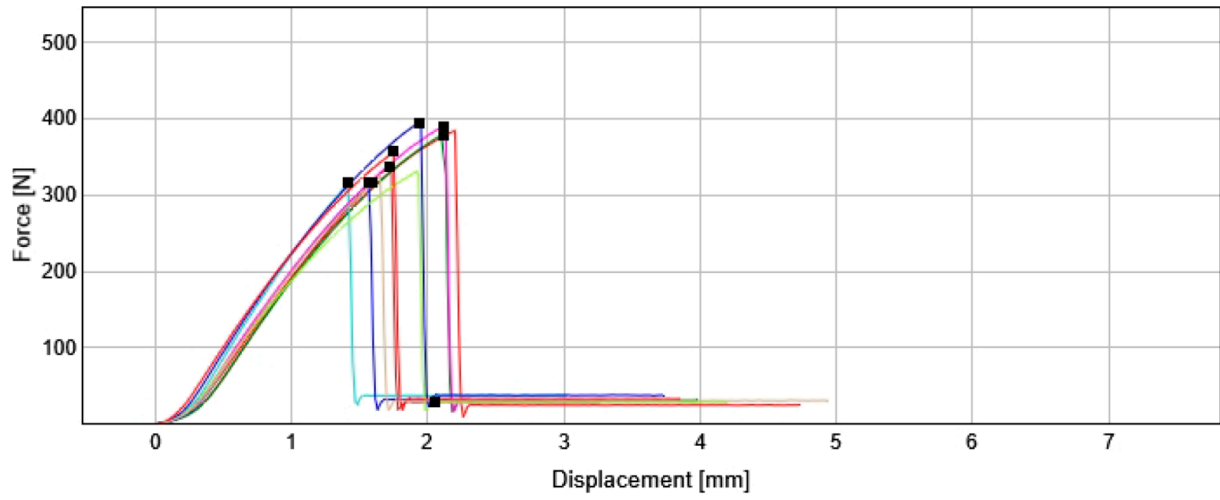


Figure S11. Stress-strain curves for Injection-Molded PMMA50

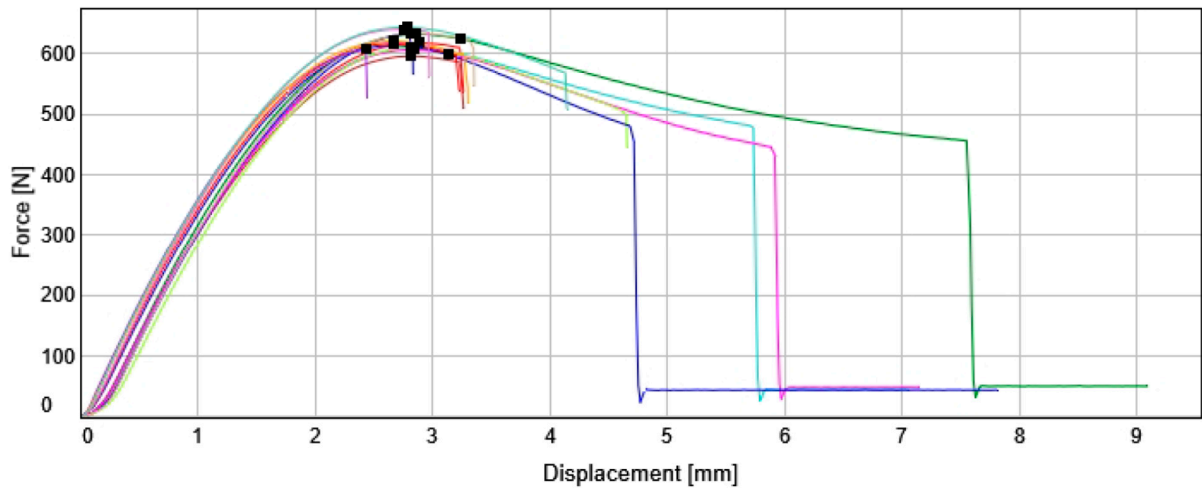


Figure S12. Stress-strain curves for Injection-Molded PMMA75

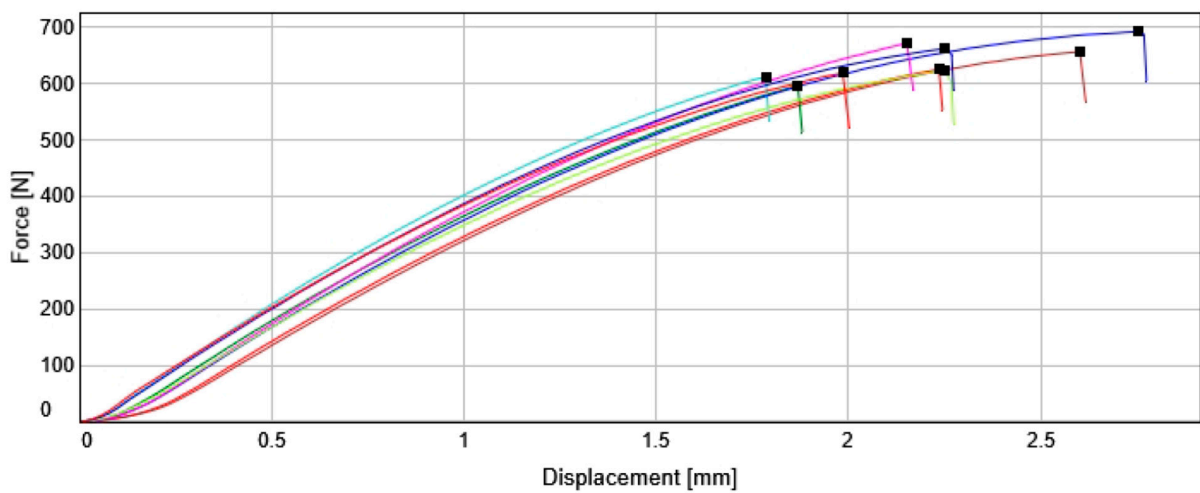


Figure S13. Stress-strain curves for Injection-Molded PMMA85

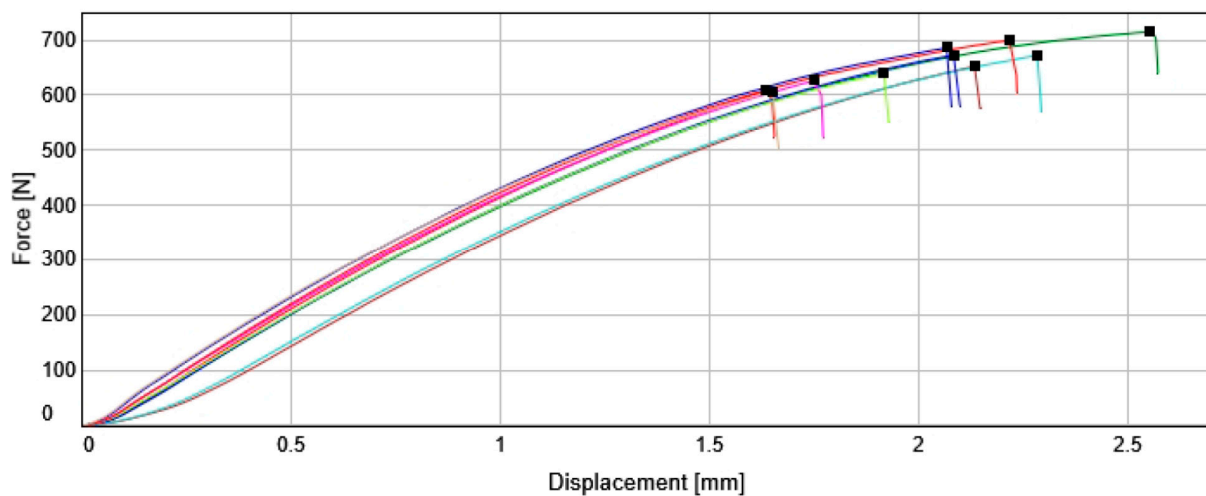


Figure S14. Stress-strain curves for Injection-Molded PMMA100

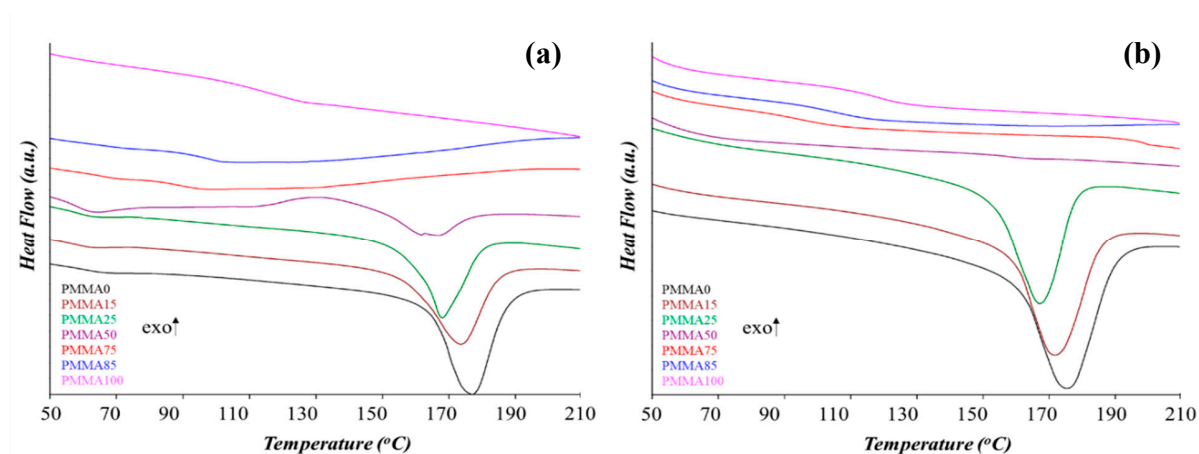


Figure S15. DSC traces for 3D printed samples undergoing the (a) first heating cycle and (b) second heating cycle. Data are summarized in Tables 2 and S1.

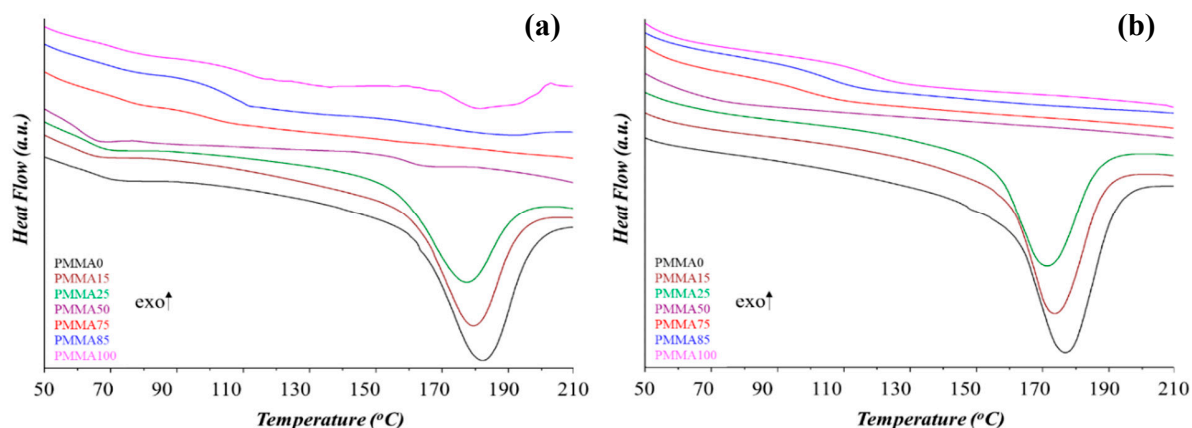


Figure S16. DSC traces for twin-screw extruded samples (filament) undergoing the (a) first heating cycle and (b) second heating cycle. Data are summarized in Tables 2 and S1.

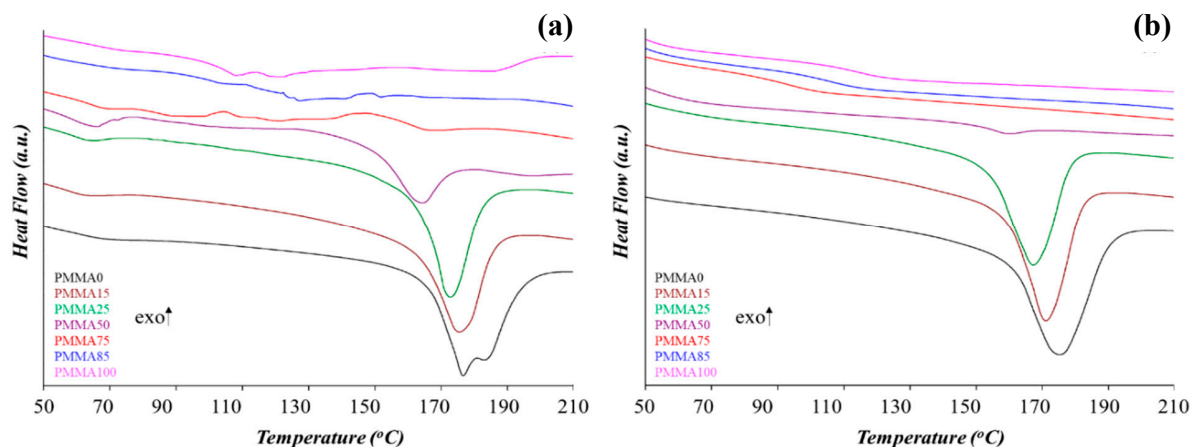


Figure S17. DSC traces for injection molded samples undergoing the (a) first heating cycle and (b) second heating cycle. Data are summarized in Tables 2 and S1.

Table S1. Glass transition (T_g), melting temperature (T_m), melting enthalpy (H_m), and crystallization (X_c) for the second DSC heating cycle.

Filament	3D Printed				IM				Filament			
	T_g	T_m	H_m	X_c	T_g	T_m	H_m	X_c	T_g	T_m	H_m	X_c
	(°C)	(°C)	(J/g)		(°C)	(°C)	(J/g)		(°C)	(°C)	(J/g)	
PMMA0		158	57.8	55%		159	44.4	42%		158	54.4	52%
PMMA15		157	44.6	50%		159	34.5	39%		158	41.8	47%
PMMA25		152	36.7	47%		153	31.7	40%		154	35.4	45%
PMMA50				0%		149	2.0	4%				0%

<i>PMMA</i> 75	95	0%	93	0%	99	0%
<i>PMMA</i> 85	106	0%	106	0%	105	0%
<i>PMMA</i> 100	118	0%	115	0%	118	0%

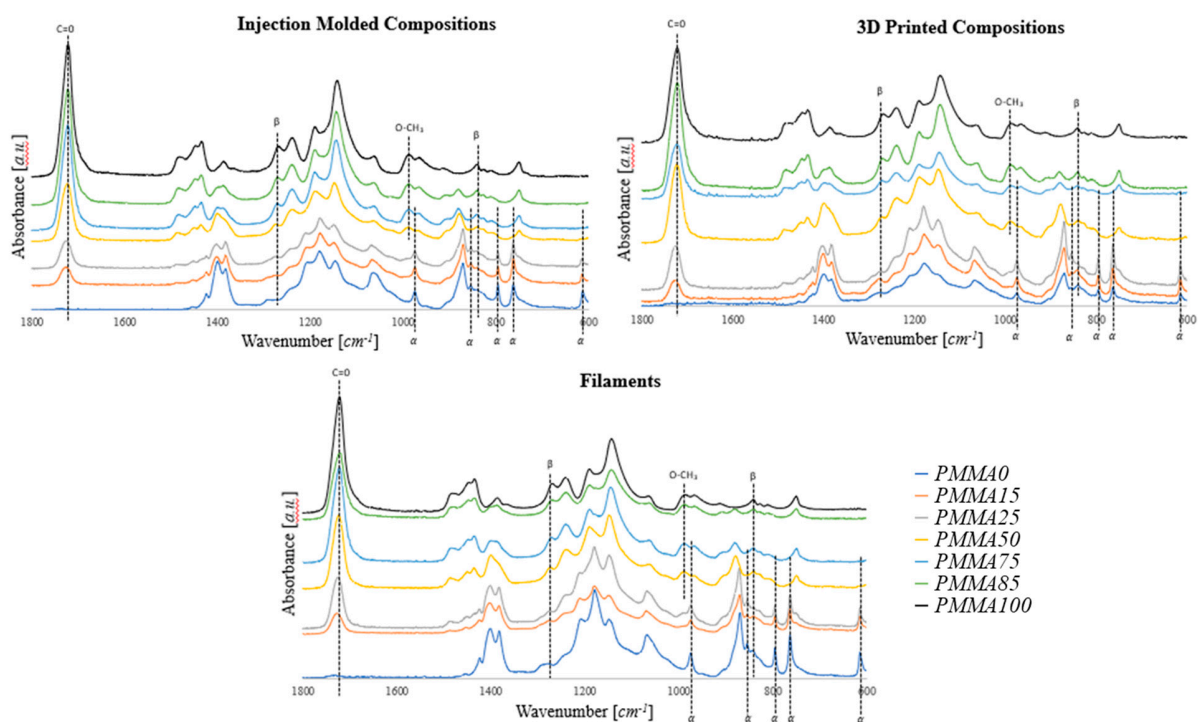


Figure S18. FTIR spectra of PVDF/PMMA blends processed by (a) injection-molding, (b) 3D printing and (c) twin-screw extrusion (filament).

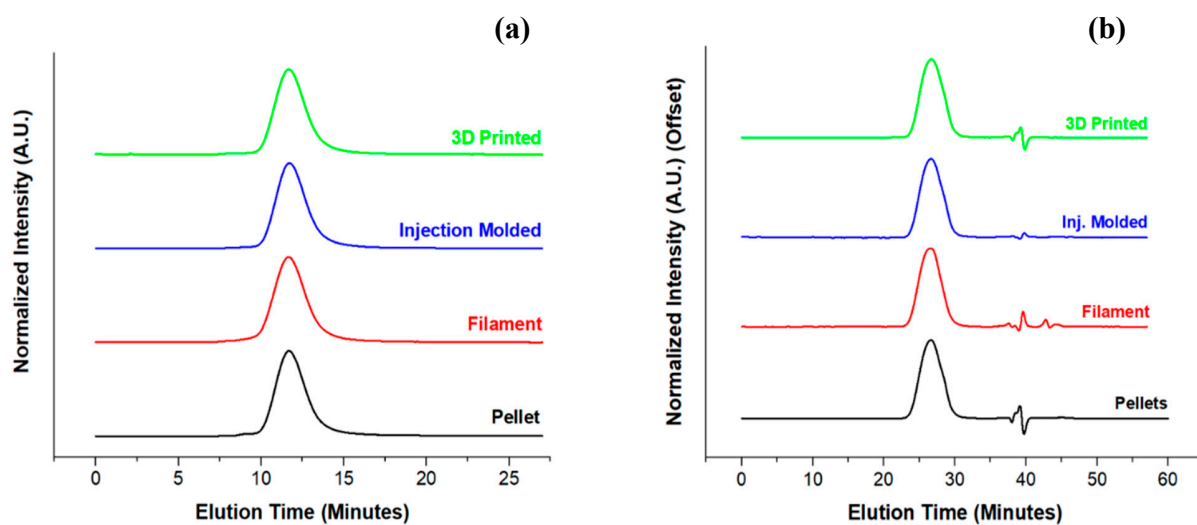


Figure S19. GPC curves of (a) PMMA and (b) PVDF for virgin (pellet) and processed (filament, injection-molded, and 3D printed) samples. Data are summarized in Tables 4 and 5.