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Research paper

Effect of the Molecular Structure and Molecular Weight of Poly(Vinylidene Fluoride-Chlorotrifluoroethylene) Copolymers on the Characteristic Properties of TATB-based Composites

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Table S1. Particle density of TFKM₁-9505, TFKM₂-9505, TFKM₃-9505, TFKM₄-9505, TFKM₅-9505 and TFKM₆-9505 by gas pycnometry

PBX samples	Composition (TATB/Binder)	Particle Density [g/cm ³]
TFKM ₁ -9505	95/05	1.95
TFKM ₂ -9505	95/05	1.94
TFKM ₃ -9505	95/05	1.95
TFKM ₄ -9505	95/05	1.93
TFKM ₅ -9505	95/05	1.94
TFKM ₆ -9505	95/05	1.94

Table S2. The impact and friction sensitivity of TFKM₁-9505, TFKM₂-9505, TFKM₃-9505, TFKM₄-9505, TFKM₅-9505 and TFKM₆-9505

Sample	Sensitivity	
	Impact sensitivity H ₅₀ (cm)	Frictional force (N)
TFKM ₁ -9505	121.0	>360*
TFKM ₂ -9505	121.0	>360*
TFKM ₃ -9505	117.5	>360*
TFKM ₄ -9505	121.0	>360*
TFKM ₅ -9505	121.0	>360*
TFKM ₆ -9505	121.0	>360*

*No reactions were observed up to 36 kg load

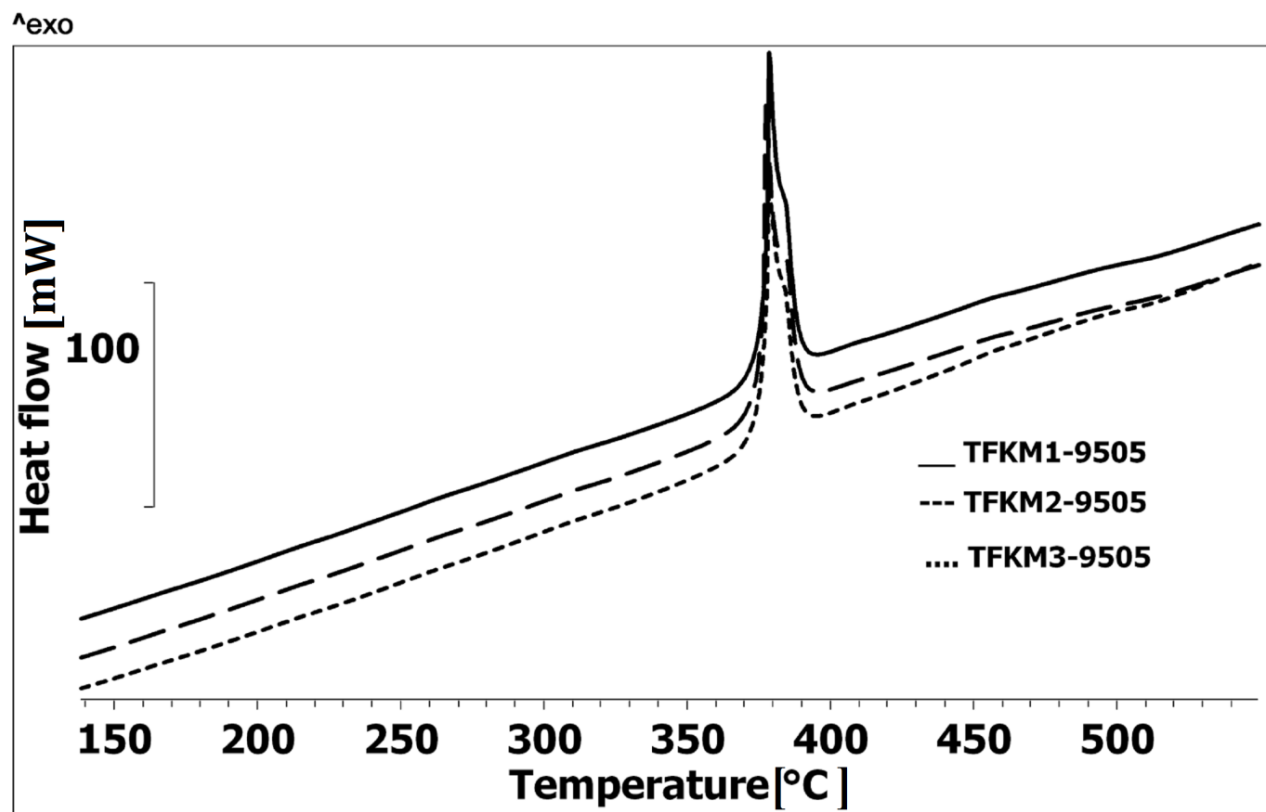


Figure S1. DSC curves of TFKM₁-9505, TFKM₂-9505 and TFKM₃-9505 samples obtained at a heating rate of 10 °C/min under a nitrogen atmosphere

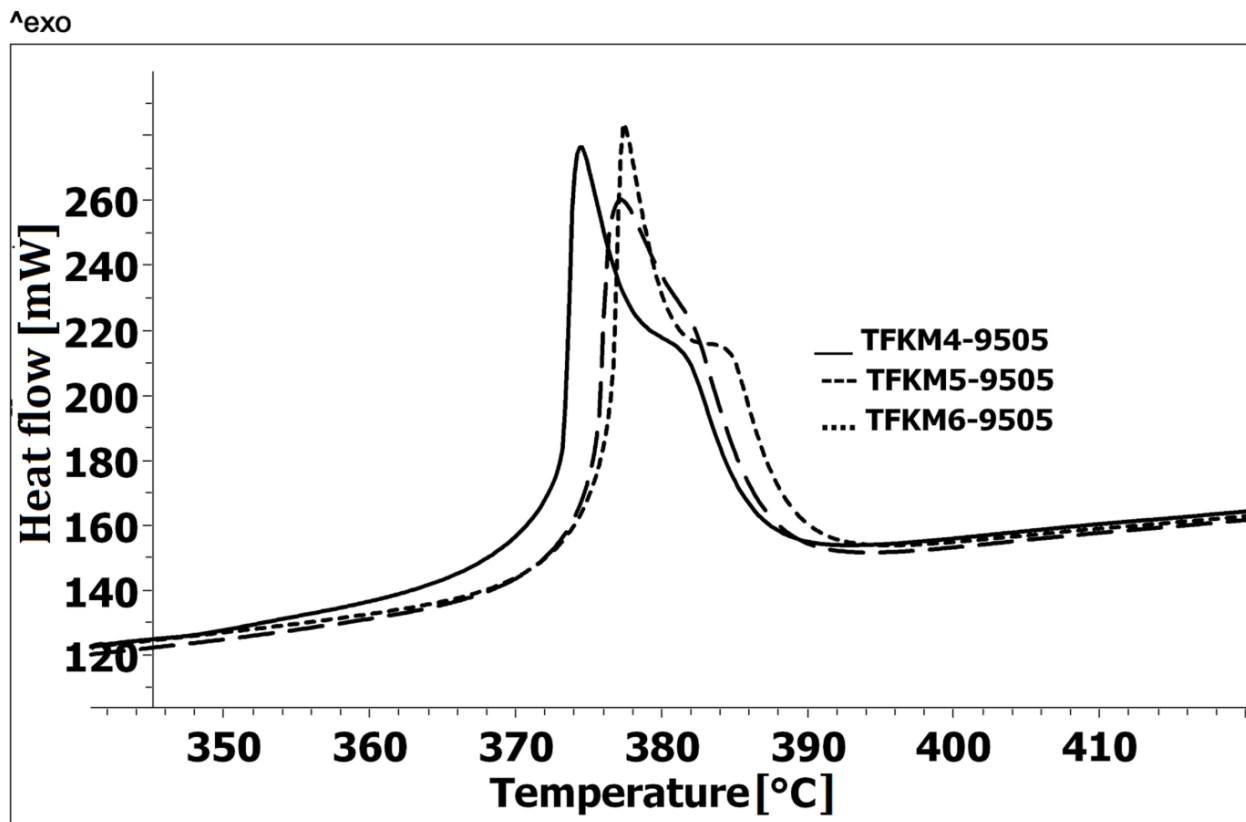


Figure S2. DSC curves of TFKM₄-9505, TFKM₅-9505 and TFKM₆-9505 samples obtained at a heating rate of 10 °C/min under a nitrogen atmosphere

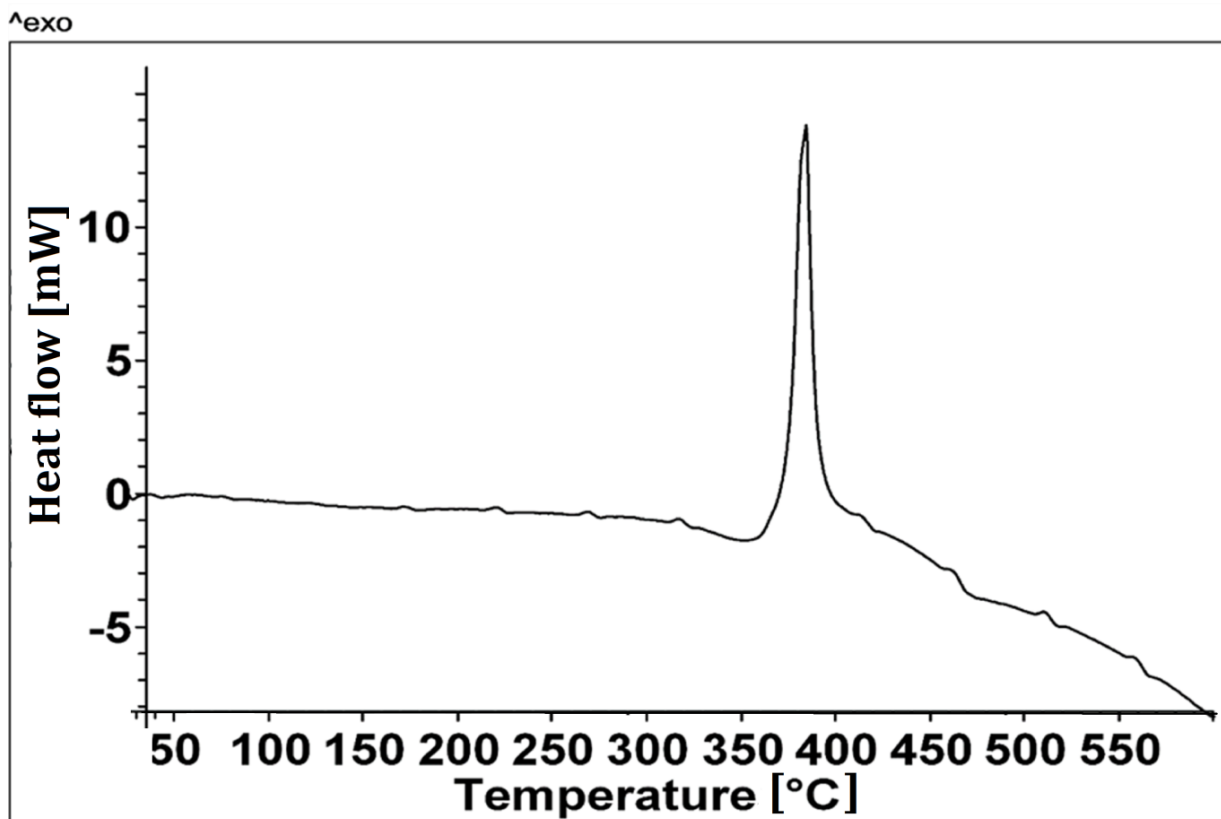


Figure S3. DSC curve of pure TATB sample obtained at heating rate of 10 °C/min under a nitrogen atmosphere

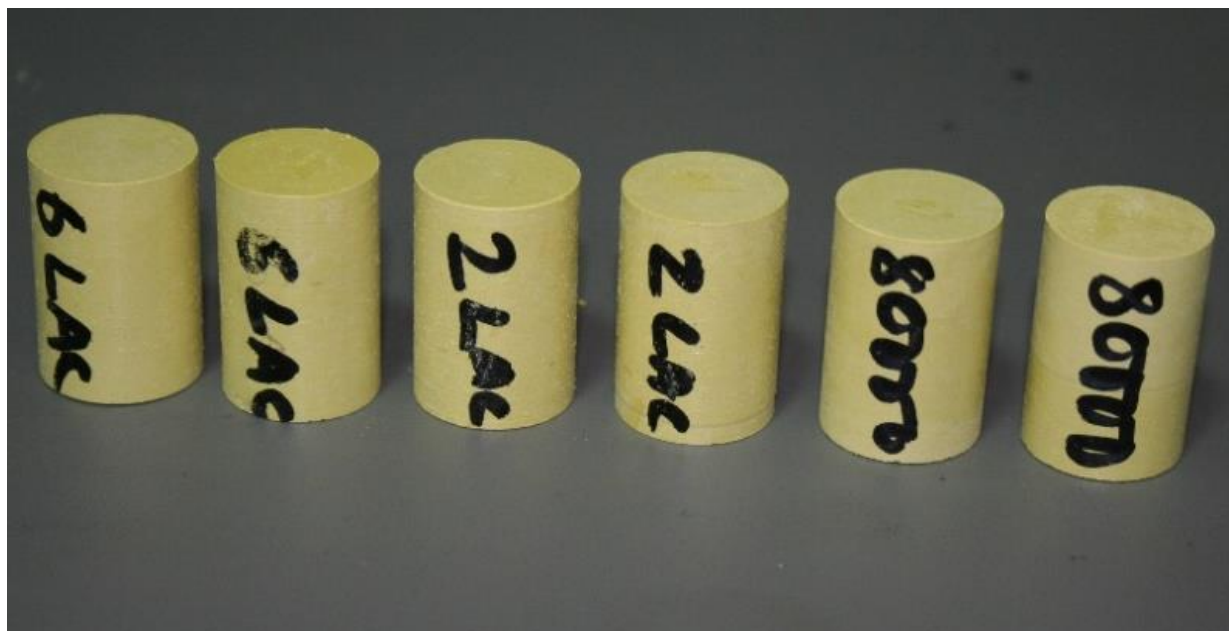


Figure S4. Photographs of pellets used for detonation parameters and mechanical properties evaluation of TFKM₁-9505, TFKM₂-9505 and TFKM₃-9505 samples

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