## Supporting information for

## Novel heat and oil-resistant thermoplastic vulcanizates based on Ethylene-Vinyl Acetate Rubber/Poly(vinylidene fluoride)

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**Figure S1.** (a) Stress–strain curves and (b) stretching recovery curves of the TPVs based on different ratios of EVM/PVDF.



**Figure S2.** AFM micrographs of EVM/PVDF (65/35) samples (the darker regions represent the EVM phase and the lighter represent the PVDF phase): (a) sample A;(b) sample B; (c) sample C; (d) sample D; (e) sample E; (f) sample F.

Table S1. Change of tensile, elongation at break, mass and volume of the TI	PVs
based on different ratios of EVM/PVDF before and after the oil resist	tant
experiment $(72 \text{ h} @ 125 \text{ °C})$	

Samples (EVM/PVDF)	Change of	Change of	Change of	Change of
	tensile strength	elongation at	mass %	volume %
	%	break %		
50/50	-17±0.3	-15±0.1	9.9±0.2	14.8±0.2
60/40	-19±0.1	-16±0.2	11.8±0.1	17.4±0.1
70/30	-22±0.1	-21±0.4	15.0±0.2	21.2±0.3
80/20	<b>-</b> 29±0.1	-25±0.3	18.1±0.1	24.5±0.1