

**Enhanced flame-retardancy and controlled physical properties of flexible polyurethane  
foams based on shear-responsive internal network**

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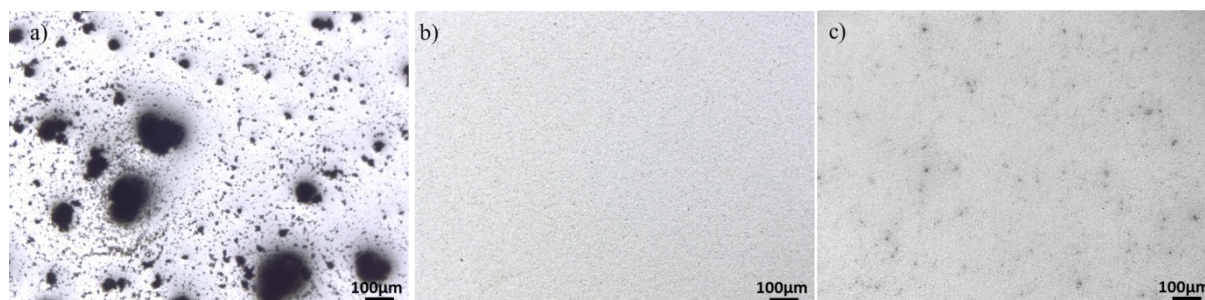
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**Supporting Information:**

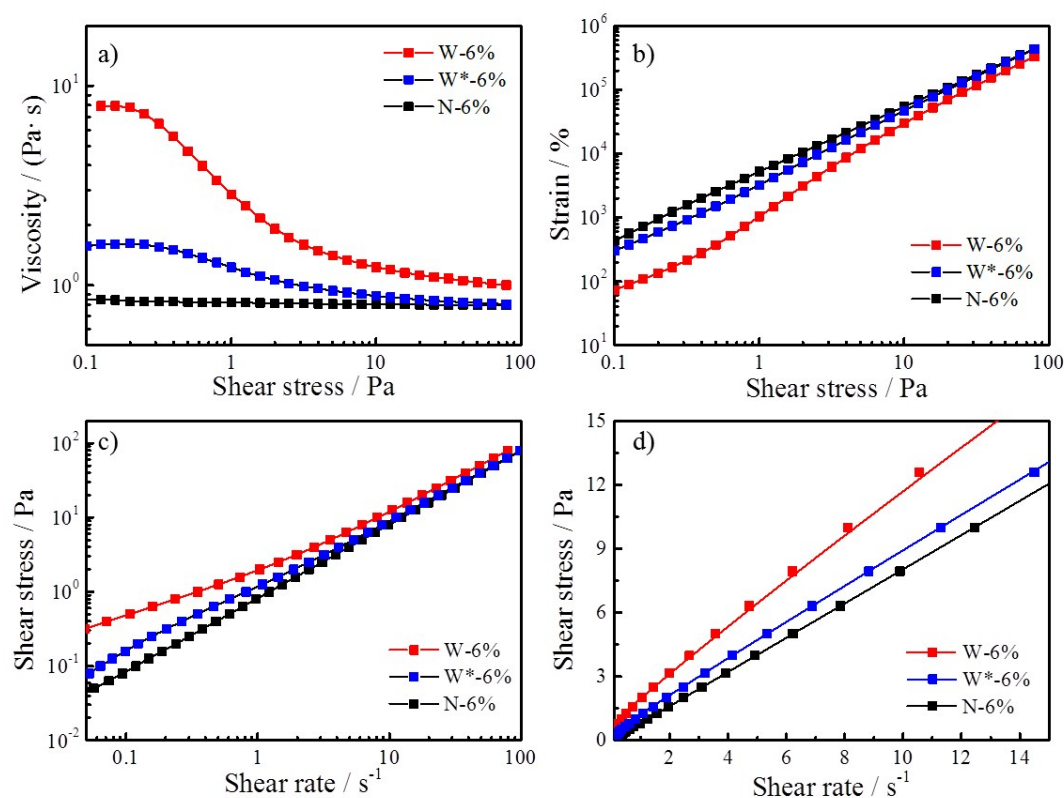
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FPUFs	Formulation						
	FR [g]	Polyol [g]	TDI [g]	Water [g]	Tegoamin ZE1 [g]	STABI AKTIV [g]	KOSMOS EF [g]
Blank	--						
5.0%	5.0	100.00	26.20	1.60	0.40	0.50	0.45
6.0%	6.0						
7.5%	7.5						

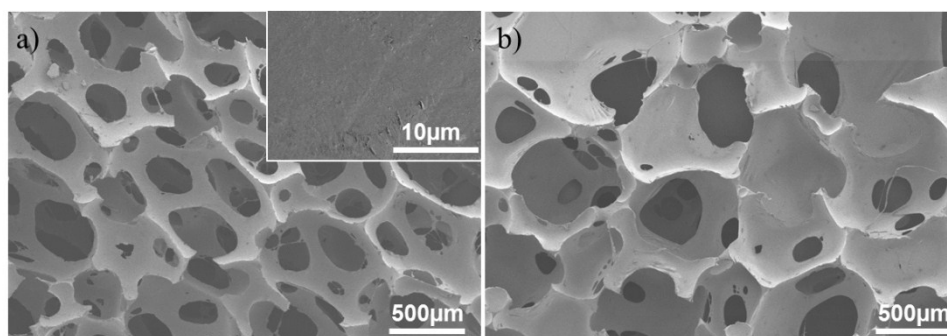
**Table S1.** The formulation of FPUFs.



**Fig. S1.** Optical microscopic images of FR-polyol suspensions: N-6% (a), W-6% (b), and W\*-6% (c).



**Fig. S2.** Rheological behavior of FR-polyol suspensions, reporting the evolution of viscosity as a function of shear stress (a), strain versus shear stress (b), logarithmic plot of shear stress as a function of shear rate (c), and linear plot of shear stress versus shear rate (d), where symbols refer to experimental values and lines to theoretical calculations using the Herschel-Bulkley fitting model.



**Fig. S3.** SEM images of blank FPUF (a) and the W-6% FPUF without pre-stirring step (b).