

Supplementary material

Table S1. Measurements of the glass transition temperature (T_g) of each PEG formulation developed.

PEG (150 mg)	T _g (°C)
Brij S100	-35.57
Gelucire	-21.15
Myrj 52	-25.62
Myrj S100	-38.18

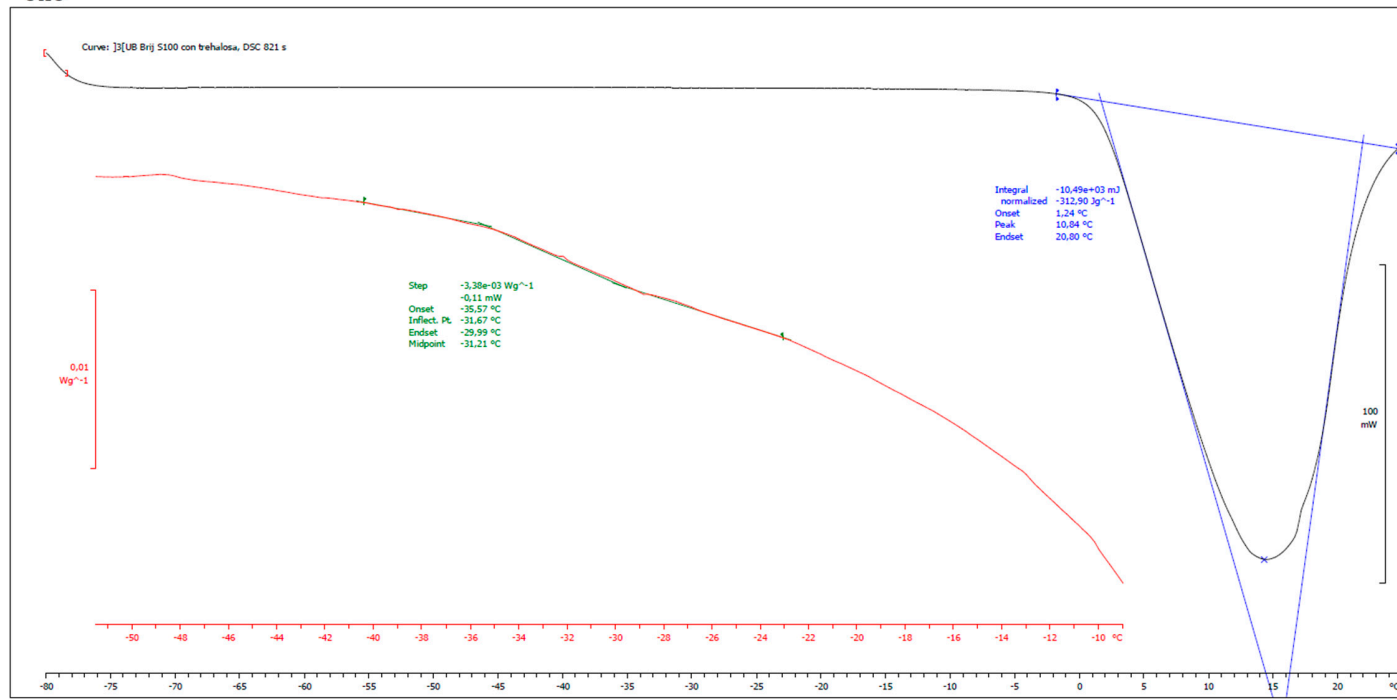
Table S2. Correlations and regressions between the physicochemical characteristics (PdI, PSD, and ZP) of suspended cSLNs and the elapsed time (30 days) of each PEG formulation at two temperatures (4 °C and 25 °C) exposed.

PEG (150 mg)	PdI				PSD (nm)				ZP (mV)			
	4 °C		25 °C		4 °C		25 °C		4 °C		25 °C	
Brij S100	<i>P</i> = 0.007	<i>R</i> ² = 0.731	<i>P</i> < 0.001	<i>R</i> ² = 0.888	<i>P</i> = 0.013	<i>R</i> ² = 0.671	<i>P</i> = 0.008	<i>R</i> ² = 0.719	<i>P</i> = 0.266	<i>R</i> ² = 0.200	<i>P</i> = 0.520	<i>R</i> ² = 0.072
Gelucire	<i>P</i> = 0.509	<i>R</i> ² = 0.074	<i>P</i> = 0.001	<i>R</i> ² = 0.864	<i>P</i> = 0.023	<i>R</i> ² = 0.604	<i>P</i> = 0.071	<i>R</i> ² = 0.450	<i>P</i> = 0.030	<i>R</i> ² = 0.572	<i>P</i> = 0.160	<i>R</i> ² = 0.300
Myrj 52	<i>P</i> = 0.688	<i>R</i> ² = 0.029	<i>P</i> = 0.005	<i>R</i> ² = 0.755	<i>P</i> = 0.032	<i>R</i> ² = 0.561	<i>P</i> = 0.034	<i>R</i> ² = 0.556	<i>P</i> = 0.007	<i>R</i> ² = 0.728	<i>P</i> = 0.067	<i>R</i> ² = 0.453
Myrj S100	<i>P</i> = 0.653	<i>R</i> ² = 0.036	<i>P</i> = 0.022	<i>R</i> ² = 0.609	<i>P</i> = 0.040	<i>R</i> ² = 0.533	<i>P</i> = 0.001	<i>R</i> ² = 0.844	<i>P</i> < 0.001	<i>R</i> ² = 0.952	<i>P</i> = 0.134	<i>R</i> ² = 0.334

Table S3. Correlations and regressions between the physicochemical characteristics (PdI, PSD, and ZP) of lyophilized cSLNs and the elapsed time (one year) of each PEG formulation at two temperatures (4 °C and 25 °C) exposed.

PEG (150 mg)	PdI				PSD (nm)				ZP (mV)			
	4 °C		25 °C		4 °C		25 °C		4 °C		25 °C	
Brij S100	<i>P</i> = 0.652	<i>R</i> ² = 0.056	<i>P</i> = 0.104	<i>R</i> ² = 0.523	<i>P</i> = 0.024	<i>R</i> ² = 0.758	<i>P</i> = 0.088	<i>R</i> ² = 0.559	<i>P</i> = 0.039	<i>R</i> ² = 0.695	<i>P</i> = 0.023	<i>R</i> ² = 0.763
DSPE	<i>P</i> = 0.607	<i>R</i> ² = 0.072	<i>P</i> = 0.752	<i>R</i> ² = 0.028	<i>P</i> = 0.118	<i>R</i> ² = 0.496	<i>P</i> = 0.303	<i>R</i> ² = 0.258	<i>P</i> = 0.469	<i>R</i> ² = 0.138	<i>P</i> = 0.774	<i>R</i> ² = 0.023
Gelucire	<i>P</i> = 0.040	<i>R</i> ² = 0.691	<i>P</i> = 0.323	<i>R</i> ² = 0.241	<i>P</i> = 0.080	<i>R</i> ² = 0.576	<i>P</i> = 0.867	<i>R</i> ² = 0.008	<i>P</i> = 0.655	<i>R</i> ² = 0.055	<i>P</i> = 0.238	<i>R</i> ² = 0.325
Myrj 52	<i>P</i> = 0.013	<i>R</i> ² = 0.819	<i>P</i> = 0.139	<i>R</i> ² = 0.460	<i>P</i> = 0.916	<i>R</i> ² = 0.003	<i>P</i> = 0.286	<i>R</i> ² = 0.275	<i>P</i> = 0.628	<i>R</i> ² = 0.064	<i>P</i> = 0.694	<i>R</i> ² = 0.043
Myrj S100	<i>P</i> = 0.450	<i>R</i> ² = 0.149	<i>P</i> = 0.173	<i>R</i> ² = 0.406	<i>P</i> = 0.065	<i>R</i> ² = 0.615	<i>P</i> = 0.159	<i>R</i> ² = 0.428	<i>P</i> = 0.005	<i>R</i> ² = 0.374	<i>P</i> = 0.922	<i>R</i> ² = 0.003

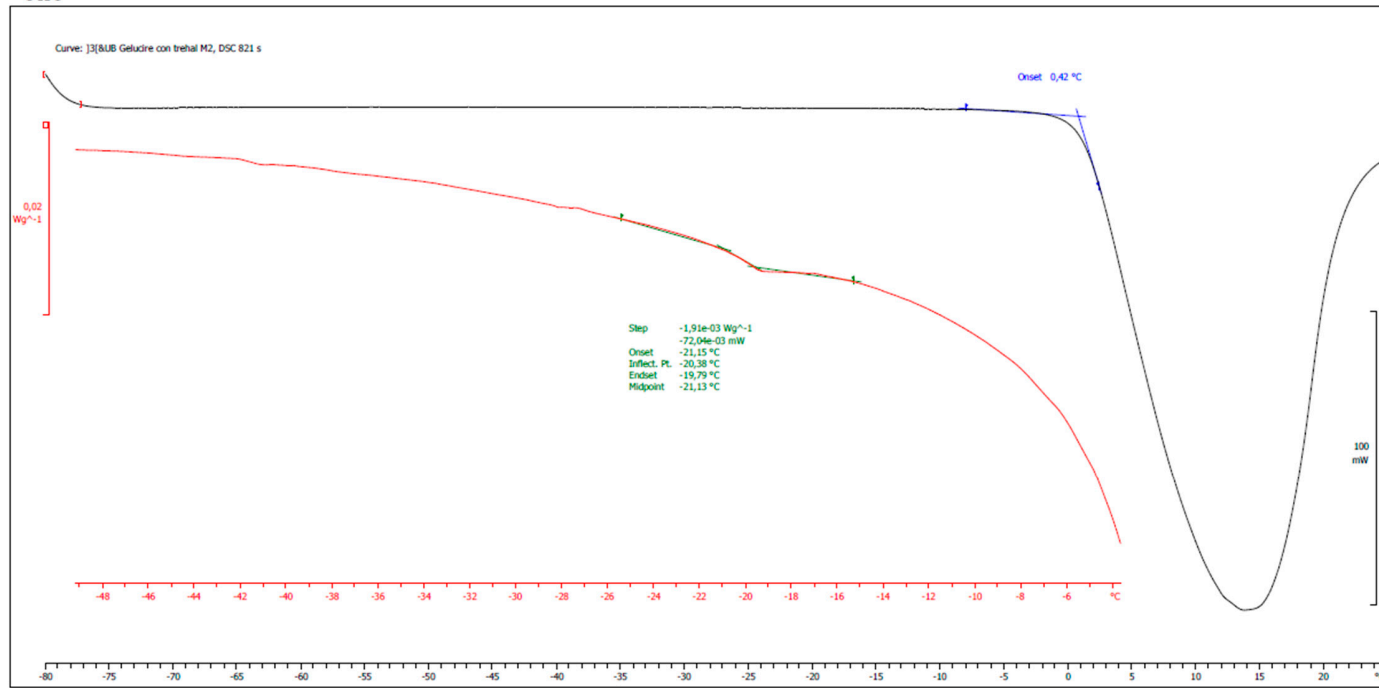
exo



A -CSIC: IQAC

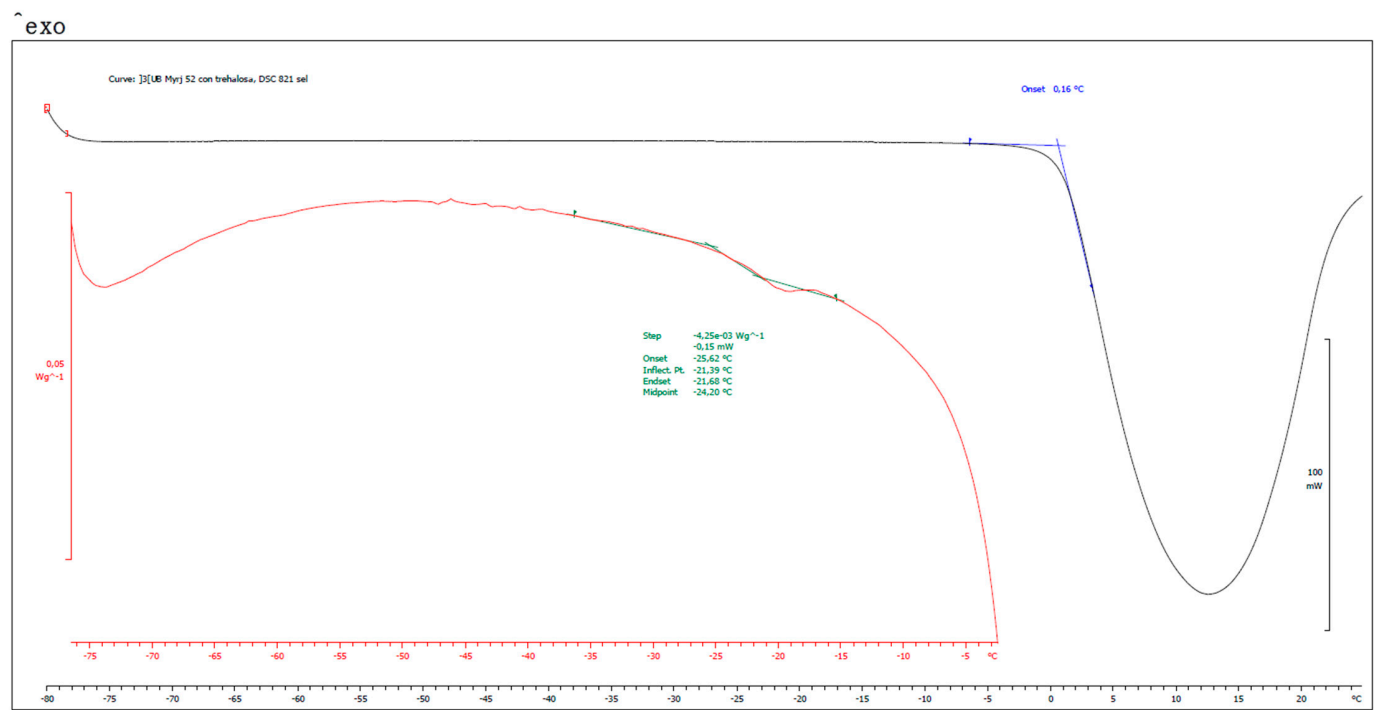
STAR[®] SW 10.00

exo

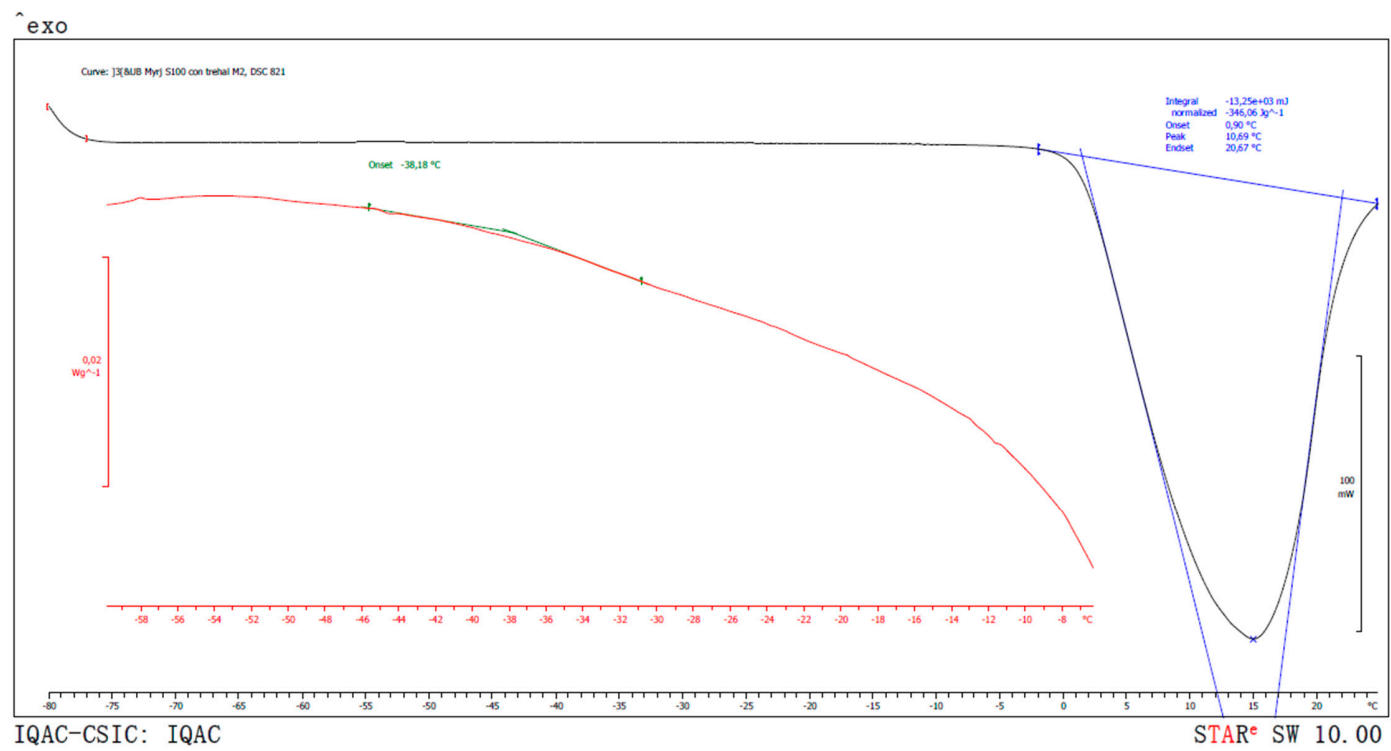


B IQAC-CSIC: IQAC

STAR[®] SW 10.00



C IQAC-CSIC: IQAC



D IQAC-CSIC: IQAC

Figure S1: DSC analysis of the four PEG-cSLNs suspended in a solution with 5% of trehalose. Brij S100 (A), Gelucire (B), Myrj 52 (C), and Myrj S100 (D).