

INTRODUCTION

SPECIFIC POLYMERS' range of epoxy resins redefines industry standards by **introducing advanced epoxy formulations** entirely **free from bisphenol derivatives**. Harnessing the unique characteristics of their core ingredients, our solutions offer the **essential properties to meet end-users' requirements**.



SP-3430_C, SP-3688_C & SP-3661_C: alternative to standard DGEBA

Leading our innovations, **SP's BP-free epoxy resins** represent ideal **alternatives** to standard **DGEBA**, providing comparable **viscosity profiles**, enhanced **reactivity**, and equivalent **performance** when combined with conventional hardeners. While **SP-3430_C** is derived from **depletable resources**, **SP-3688_C** & **SP-3661_C** **push the boundaries**, delivering same **performances** with an unparalleled **biobased carbon content of up to 72%**. **SP-3430_C** and **biobased references SP 3688_C** & **SP-3661_C** are particularly suitable for **pultrusion** and **filament winding processes**.

KEY FEATURES

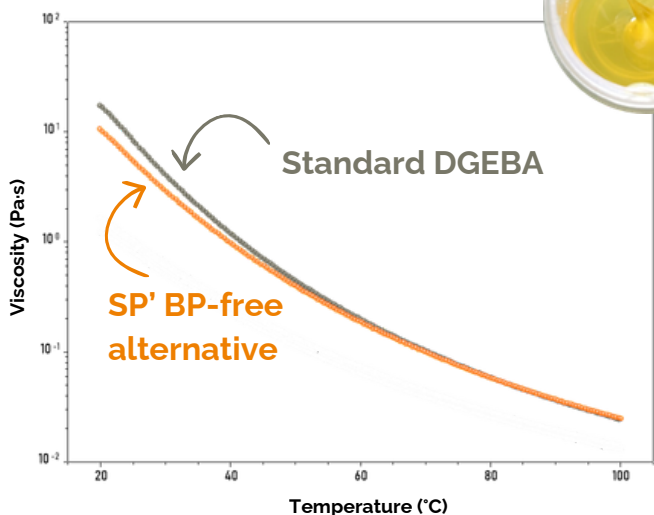
1. Bisphenol-free resins
2. Product grades available with biobased carbon content ranging from **0 to 72%**
3. Orange viscous liquids at room temperature
4. Comparable viscosity and performance to standard DGEBA-based resin
5. Improved reactivity compared to standard DGEBA

TYPICAL DATA OF NEAT RESIN & VISCOSITY PROFILE

Reference	Characteristic	Biobased carbon content (%)	Epoxy content (meq/g)	Epoxy Eq. Weight (g/eq)	Viscosity at 25°C (mPa.s)	Application
SP-3430_C SP-3688_C SP-3661_C	BP-free alternative to unmodified standard DGEBA	0 ; 42 ; 72	7.3 - 8.2	118 - 139	4000 - 7000	General purpose application. Suitable for pultrusion and filament winding processes

BIO-BASED AND BISPHENOL-FREE EPOXY RESINS

DATASHEET SP-3430_C SP-3688_C SP-3661_C Alternative to DGEBA



Reference	Viscosity (mPa.s)*					
	20°C	25°C	30°C	40°C	60°C	80°C
SP-3430_C SP-3688_C SP-3661_C	10500	5500	2950	990	185	60

*Typical data

SP's BP-FREE ALTERNATIVE & HARDENERS

System		Rheology		Reactivity			Thermomechanical properties	
Hardener	Epoxy	Mix η @25°C (mPa.s)	Min η (mPa.s)	Tonset (°C)	Tpeak (°C)	Gel time @80°C	T _g (°C)	T _a (°C)
Aromatic hardener	DGEBA	3980	--	157	204	> 4h	172	170
	SP-3430_C	2846	--	135	177	3h	210	225
Cycloaliphatic hardener	DGEBA	1850	--	81	114	13 min	132	--
	SP-3430_C	1990	--	69	106	2 min 30	155	--
Latent hardener (DDS)	DGEBA	--	14	175	224	--	--	182
	SP-3430_C	21000 (60°C)	31	161	203	--	--	231
Latent hardener (DICY)	DGEBA	26500	452	133	155	--	--	140
	SP-3430_C	22200	558	130	148	40°C >4h	--	142