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Silicone Surfactants Guide For Urethane

a member of Wynca新安

至臻之智 共高未来

About Wynca

Zhejiang Xinan Chemical Industrial Group Co., Ltd. (known as Wynca Group) was established in 1965, and listed in Shanghai Stock in Sept. 2001.

The major businesses of Wynca are crop protection products and organic silicon materials. The company has formed a complete silicone industry chain from smelting cores, ganister sand processing, monomer systhesis to the final products, generating the four large product series including silicone rubber, silicone oil, silicone resin and silane coupling agent. All of those have contributed to the company's superiority of whole industrial chain in the industry.

Wynca sticks to international development path and the products are marketed to many countries and regions in the world. Wynca set up subsidiaries in North America, South America and Africa, and established strategic partnership with Momentive and Evonik respectively, which contribute to the stable growth of international brand popularity and market shares.

About Top Win

Top Win is established by Wynca Group together with several specialty silicone companies for the purpose of integrating the complete Silicone industry chain and marketing into the final products fields. The company gains competitive advantages from its founders who are sophisticated industrial players in both upstream and downstream supply chain.

We're specialized in research, production, sales and marketing in silicone-based performance materials and a professional technical service provider. Our products are mainly used in polyurethane foam, textile and leather, coating and ink, paper release coating, personal care and agriculture, etc.

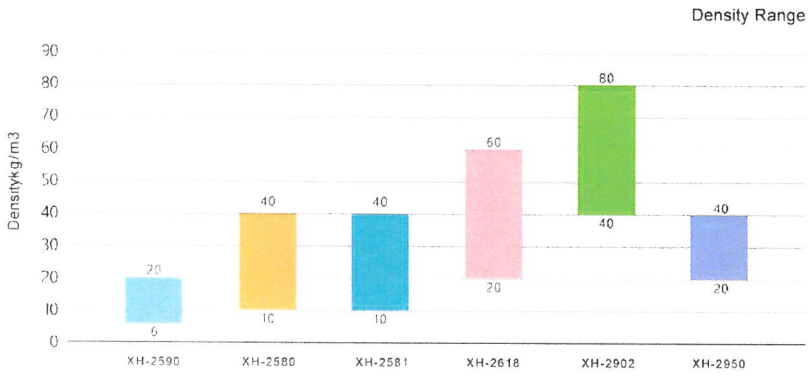
The WynPUF® brand silicone stabilizers are enjoying good reputation with being widely used in rigid foam, flexible foam, molded foam, shoe sole and PU leather covering various applications in appliances, furnitures, architechture, automobile, etc.

The goal of Top Win is to become one of the leading silicone based performance materials suppliers and solution providers in China.

WynPUF®Silicone Surfactants for Flexible Foam

Product name	Foam Type	Potency	Processing Latitude	Density Range(kg/m3)	Characteristics
XH-2580	Conventional Flexible Foam	Medium to High	Wide	10-40	General purpose with very regular cell structure.
XH-2581		Medium to High	Wider	10-40	General purpose with good breathability and hand feeling.
XH-2590		Very High	Narrow	6-20	Suitable for super low density, even low to 6kgs/m³ with reasonable formulations.
XH-2618		Medium	Wider	20-60	Medium potency surfactant, wide processing latitude and fine cell structure.
XH-2902	Viscoelastic Foam	Low	Very Wide	40-80	Low potency surfactant, suitable for high density foam and also can be used for viscoelastic foam.
XH-2950	Flame Retardant Foam	Medium	Wider	20-40	Surfactant to help flame retardancy, low fogging and low VOC, and help foam to meet the standard of BS5852 crib5.

The table below can give us a more intuitive understanding of our products



WynPUF® Silicone Surfactants for High Resilience Foam

Product name	Characteristics	Application
XH-2833	Higher stability and good cell opening.	Suitable for SAN and PHD polymer system

WynPUF® Silicone Surfactants For HR Molded Foam

Product name	Product name	Product name
XH-2815	Very good cell regular and weak foam stability, low VOC and low fogging surfactant	Suitable for all MDI system or MDI dominated high resilience system, and also can be used as co-surfactant in T/M system
XH-2836	Strong foam stability and help to produce foam with good surface and sub-surface . Low VOC and low fogging surfactant	Suitable for all TDI system or TDI dominated high resilience system, and also can be used as co-surfactant in M/T system

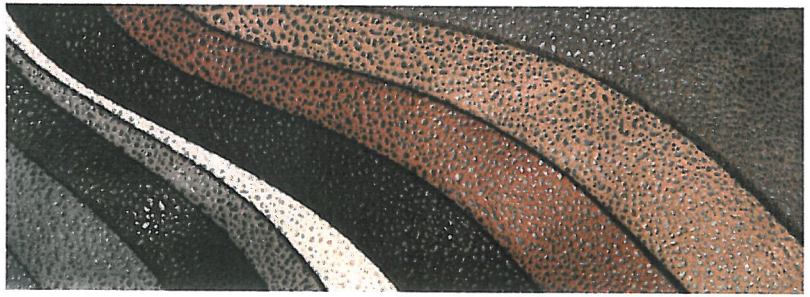
WynPUF® Silicone Surfactants for Rigid Foam

Product Code	Application							Blown System			Product Description
	Appliances Insulation	Discontinuous Panel	Continuous Panel	Spray Foam	Pipe Insulation	One Component Foam	Wood Imitation	Pentane	HCFC-141b	H2O/Low Fluorine	
XH-1193		●	●	●					●	●	Recommend to formulate into FR foam and also recommend to footware system
XH-1544		●	●	●				●	●	●	Provide excellent compressive strength and dimensional stablity in HCFC-141b system and Hydrocrbon system and have good flowablity.
XH-1550		●	●	●	●		●	●	●	●	The surfactant for HCFC-141b system to provide dimensional stablity and good flowablity
XH-1685		●	●	●				●	●	●	Fine closed cell structure and low K factor
XH-1686		●	●	●				●	●	●	Provide fine cell structure in HCFC-141b and pentane system and also have good K factor
XH-1690	●	●	●	●			●	●	●	●	General purpose and provide good stablity in HCFC-141b, pentane and water blowing system.
XH-1698	●		●					●	●		Very fine cell structure and excellent emulsification for pentane system. Especially suitable for appliances and panel and have low K factor
XH-1780		●		●	●				●		General purpose with cost effective
XH-1810						●					Special product for lengthening and is used together with XH-1840
XH-1830			●			●					General purpose with fine cell structure for OCF
XH-1840						●					Special product for lengthening and is used together with XH-1810
XH-1880						●					Suitable for OCF system in high humidity and high temperature circumstances and provide fine cell structure, good cell opening and dimentional stablity
XH-1920							●			●	Suitable for wood imitation and structural foam

Wyncoat® Polyurethane Resin Modifier and Anti-graffiti Additive

WynCoat® reactive silicone additives are organic modified polydimethyl-siloxane terminated with carbinol. In a variety of polyurethane systems, carbinol can be cross-linked with NCO so that the introduction of silicone into resin system components for the polyurethane coating can provide anti-graffiti and easy cleaning properties. The products can also be used for solvent-borne or aqueous coatings.

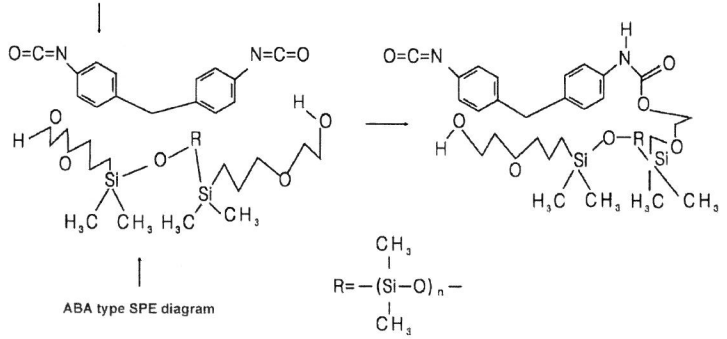
Products	Functional Group	Equivalent weight	Performances
SL-4111	End CH$_2$CH$_2$OH	1000	Excellent compatibility with PU resin and with little effect on the transparency of resin
SL-4160		1200	Improve leveling and mar resistance of resinous coatings
SL-4162		1400	Improve leveling and anti-sticking properties of resinous coatings to help peel
SL-4956	/	/	Good slip and compatibility with PU resin and stay release paper used repetitiously
SL-5019	/	/	Dry sliding feeling



Products	Functional Group	Equivalent weight,g/mol	Application	Performances
SL-7510	End Carbinol	500	• Resin modifier • Paint additive	• Reactivity • Good mold release • Oxygen permeability
SL-7520		1000		
SL-7530		1500		
SL-7540		2000		

Wyncoat® Thermoplastic Urethane Additives

Urethane Structure



ABA type SPE diagram

Products	Functional Group	Performances
SL-7210	Reactive silicone	Improving the flexural flexibility and internal release of TPU resin at low temperature
SL-7212	Reactive silicone	Improving the flexural flexibility with better internal release of TPU resin at low temperature