



SYNTRAN® Polymers

For enhanced architectural paints

ZS INTERPOLYMER offers a range of waterbased acrylics that can be used in architectural paints based on multiple proprietary technologies (bimodal, opacifier, self-crosslinking and high solids). These technologies all impart unique properties to the finished paint:

Bimodal technology combines two different ionic structures in the same polymer network increasing the adhesion to multiple substrates, wood tannin blocking, stain blocking and dye blocking. This technology allows a formulator to take advantage of the benefits of a cationic acrylic without the traditional compatibility issues.

Opacifier technology can be used to replace a percentage of titanium dioxide used in white paints, while maintaining the same or similar coverage. The ideal reduction level of titanium dioxide is approximately 15%, when using this technology. Higher reduction of titanium dioxide levels can be achieved, but you may experience a slight loss in coverage of the paint.

Self-crosslinking technology combines two different crosslinking mechanisms on the same polymer backbone, which substantially increase the chemical resistance, stain resistance and water resistance of the cured polymer film. This technology was designed for the self-crosslinking mechanism to fully cure at room temperature, but maintain standard, long-term shelf stability.

High solids technology creates a film with very high flexibility, excellent water resistance, and excellent coverage. This technology also allows for excellent adhesion over multiple substrate types.

Product Range

SYNTRAN® acrylics				
	pH	Solids (%)	MFFT (°C)	Comment
6145	7.5	40	< 10°C	Bimodal for tannin & stain blocking paints
5933	7.0	35	80°C	Opacifier for reduced TiO ₂ usage in paints
1693	7.5	42	15°C	Self-crosslinking for fortified paints
6200	7.5	50	5°C	High solids for use in traditional paints

These SYNTRAN® acrylic polymers are used in multiple markets to give improved performance over traditional acrylic emulsions. Since these are an ZS INTERPOLYMER internally developed technology, we are able to develop tailor-made solutions based on customer requirements.

Formulating Guidelines



Tannin Blocking Primer F74-030-09 @45%nv		Semi-gloss White Paint F74-030 -05		-06
<u>Grind</u>	% wt	<u>Grind</u>	% wt	% wt
Titanium Dioxide Slurry	28.14	Titanium Dioxide Slurry	31.09	27.18
SYNTRAN® 1511	0.66	SYNTRAN® 1511	0.65	0.61
Wetting agent	0.10	Wetting agent	0.09	0.09
Defoamer	0.03	Defoamer	0.03	0.03
<u>Letdown</u>		<u>Letdown</u>		
Water	7.61	Water	2.37	3.29
SYNTRAN® 6145	62.00	SYNTRAN® 1693	55.46	57.52
Propylene glycol	0.66	SYNTRAN® 5933	-	4.61
Wetting agent	0.10	Propylene glycol	0.89	0.92
Defoamer	0.03	AMP PC-2000	0.03	0.03
Rheology modifier	0.66	Wetting agent	0.09	0.09
<i>Total</i>	<i>100.0</i>	Defoamer	0.03	0.03
		Rheology modifier	1.48	1.54
		Water	7.79	4.05
		<i>Total</i>	<i>100.0</i>	<i>100.0</i>

Our company

ZS INTERPOLYMER has been producing waterbased specialty polymers since 1963. We manufacture at 4 facilities worldwide (2 in the United States, 1 each in France and China). ZS INTERPOLYMER is a market leader in several application fields:

- Surface care: Polymers for floor care, carpet cleaners and leather care.
- Consumer specialties: Polymers for mascara, household, hair- and skin- care products, etc.
- Industrial specialties: Functional binders for specialty paint and coating applications, polymers for overprint varnishes and inks, flocculants for ceramics, retanning agents.

With close working relationships with customers, our company produces tailor-made products in order to match specific needs. Our technical service and research and development centres will be your creative and innovative partners.