



## TEKsperser S2

High molecular weight polymeric dispersant with cationic functionality

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### Description:

TEKsperser S2 is a high molecular weight polymer graft of acrylic-styrene type copolymer dispersion agent designed as wetting and dispersing agent for solvent base coating. TEKsperser S2 prevents reflocculation of pigments through steric hindrance and therefore stabilizes the color strength and hue of pigments in paints and pigment concentrates system. Its high concentration of pigment affinic groups improves the wetting and dispersing even at a low dosage. TEKsperser S2 designed to disperse difficult organic pigment especially high color carbon black. The dispersion agent also can be used for other colors such as red, blue, green, and yellow.

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### Physical constant:

Appearance	Clear to slightly haze yellow liquid
Percent active, %	29-31
Solvents	Glycols

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### Application:

TEKsperser S2 can be used in all types of solvent base coatings such as automotive base coat (OEM and refinish), high performance industrial coatings, coil coatings, and solvent base ink. TEKsperser S2 is compatible to difference resin chemistries particularly acrylic, polyester, and alkyd (long, medium, and short chain).

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### Recommend Dosage:

High color carbon black (T area >250 m <sup>2</sup> /gram)	20-40% active on carbon black
Medium color carbon black (T area = 200-250 m <sup>2</sup> /gram)	10-20% active on carbon black
Regular color carbon black (T area < 200 m <sup>2</sup> /gram)	3-5% active on carbon black
Other colors pigment	5-20% active on pigment
Inorganic pigment	5-10% active on pigment

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### Incorporation:

TEKsperser S2 can be incorporated in the mill base before or after addition of pigment.

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US: Chem-Teks  
Lowell, MA 01851  
TEL: 978-689-5017

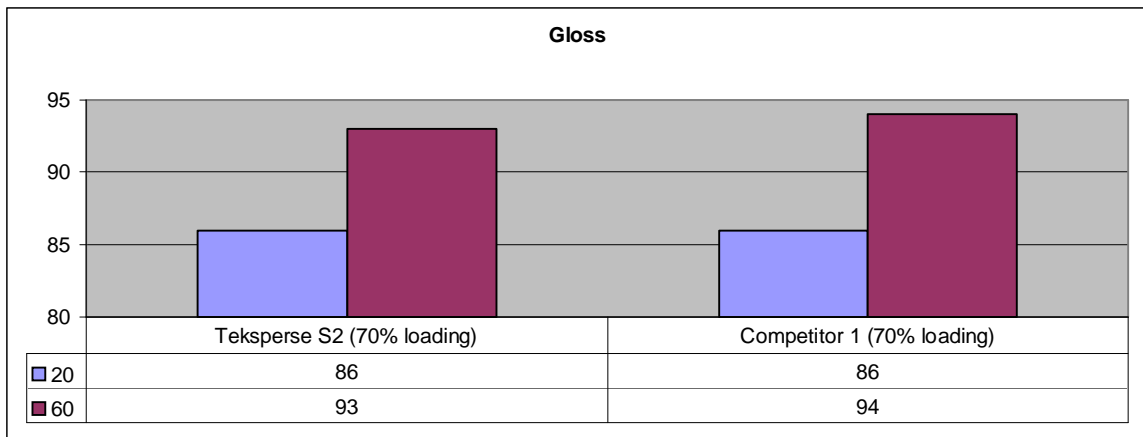
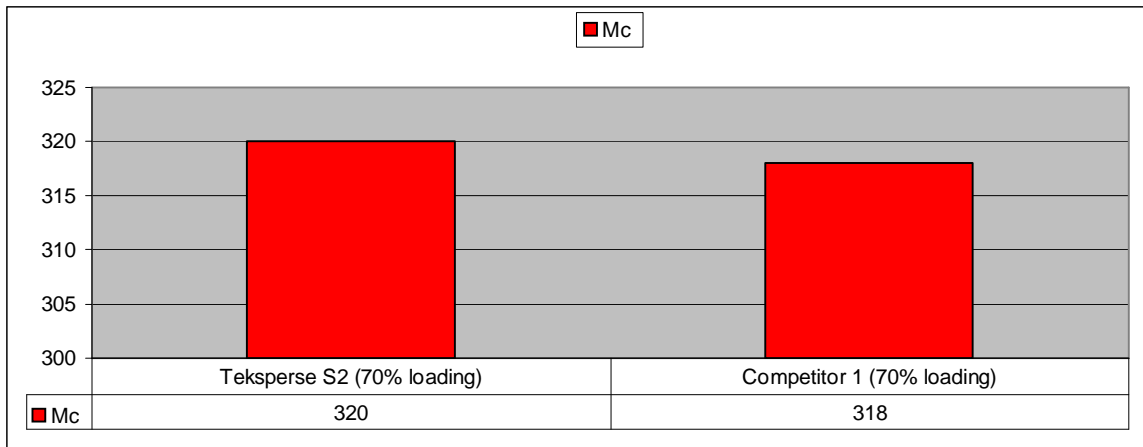
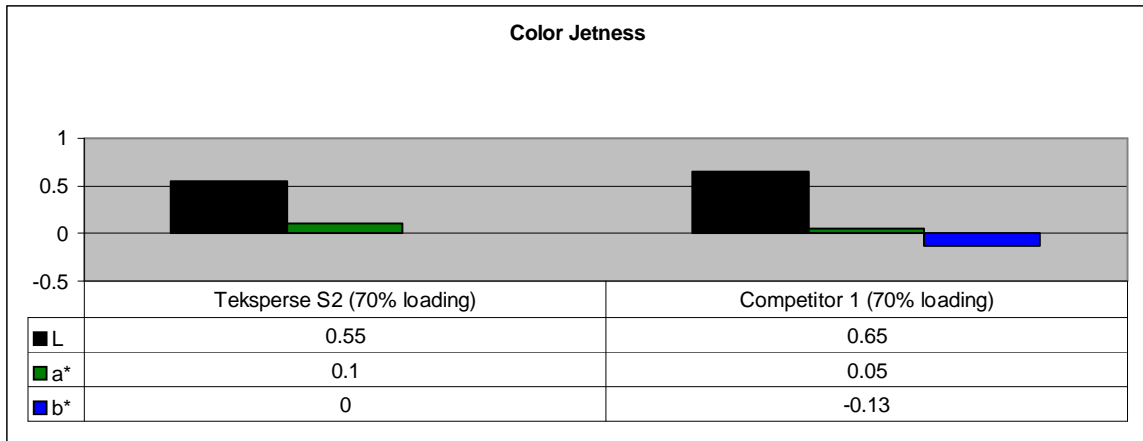
Asia: Sun Neutral (M) Sdn Bhd,  
24-A-5, 4th floor, Jalan SS6/3, Kelana Jaya  
47301 Petaling Jaya  
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TEL: +603-78049508, FAX: +603-78800618

**FORMULATION STUDY:****High Solids Acrylic System**

<b>MILLBASE:</b>		
Macrynal 510	40	40
Aromatic 100	34.5	34.5
Dispersion agent	15.5	15.5
Grade	TEKSPERSE S2	COMPETITOR 1
MONARCH 1300	10	10
Premix the above at 3,000RPM for 10 minutes, then run in skandex for 4 hours		
Media	Zirconium Oxide	Zirconium Oxide
Media size, mm	1.6-2.0	1.6-2.0
<b>Millbase constants:</b>		
Total solids, %	45	45
Carbon black loading, %	10	10
Dispersant/Pigment, active %	70	70
<b>LETDOWN MASTERBATCH:</b>		
Macrynal 510	500	500
Cymel 325	120	120
Aromatic 100	200	200
Premix the letdown masterbatch under good agitation for 30 minutes Finish formulation is as following		
<b>Finish Formulation:</b>		
Letdown masterbatch	150	150
Millbase	25	25
<b>Formulation constants:</b>		
Total solids, %	53.0	53.0
Carbon black loading, solids, %	2.7	2.7
Premix the finish formulation under good agitation for another 20 minutes Adjust viscosity with aromatic 100 to 25-30 seconds # 4 Ford cup for spray application		
<b>Performance Properties:</b>		
<b>Base coat</b>		
DFT, microns	25-28	25-28
Flash off, RT, minutes	5	5
Flash off base coat, 100°C	5 minutes	5 minutes
<b>Clear coat</b>		
DFT, microns	60-65	60-65
Flash off, RT, minutes	10	10
Flash off base coat, 140°C	30	30
	Mc	
Gloss	20	87
	60	93



**PERFORMANCE COMPARISION (Acrylic):**



## FORMULATION STUDY:

### Polyester System

<b>MILLBASE:</b>		
26-1025	50	50
Aromatic 100	24.5	24.5
Dispersion agent	15.5	15.5
Grade	TEKSPERSE S2	COMPETITOR 1
MONARCH 1300	10	10
Premix the above at 3,000RPM for 10 minutes, then run in skandex for 4 hours		
<b>Media</b>	<b>Zirconium Oxide</b>	<b>Zirconium Oxide</b>
Media size, mm	1.6-2.0	1.6-2.0
<b>Millbase constants:</b>		
Total solids, %	62.0	62.0
Carbon black loading, %	10	10
Dispersant/Pigment, active %	70	70
<b>LETDOWN MASTERBATCH:</b>		
26-1025	385	385
Cymel 325	120	120
Aromatic 100	300	300
Premix the letdown masterbatch under good agitation for 30 minutes Finish formulation is as following		
<b>Finish Formulation:</b>		
Letdown masterbatch	150	150
Millbase	25	25
<b>Formulation constants:</b>		
Total solids, %	56.0	56.0
Carbon black loading, solids, %	2.6	2.6
Premix the finish formulation under good agitation for another 20 minutes Adjust viscosity with aromatic 100 to 25-30 seconds # 4 Ford cup for spray application		
<b>Performance Properties:</b>		
<b>Base coat</b>		
DFT, microns	25-28	25-28
Flash off, RT, minutes	5	5
Flash off base coat, 100°C	5 minutes	5 minutes
<b>Clear coat</b>		
DFT, microns	60-65	60-65
Flash off, RT, minutes	10	10
Flash off base coat, 140°C	30	30

**PERFORMANCE COMPARISION (Polyester):**

