

# Tackifiers

	Product Line	Product	AV (mg KOH/g)	Color (Gardner)	Softening Point (°C)	% Abietic Acid	Viscosity (mPa.s)	Observations	Applications					
									Depilatory Waxes	Adhesives	Flooring	Road Marking	Special Applications	
ROSIN	Gum Rosin	YT 101 E	140-170	7 max	72-82				•	•		•	•	
	Non Crystallizing Gum Rosin	YT 102	170 max	8 max	79-83						•			
		YT 103	150 max	9 max	94-99						•			
		YT 104	150 max	6 max	71-76	8 max					•			
		YT 105	130 max	7 max	68-72						•			
		YT 106	170 max	8 max	85-90						•			
		YT 107	160 max	8 max	78-82						•			
	Disproportionated Rosin	YT 301	160 max	12 max	65-70	5 max								•
		YT 302	160 max	8 max	72-78	1 max								•
		YT 303	160 max	11 max	65-73	0,5 max								•
YT 304		130-150	8 max	65-75	5 max								•	
Polymerized Rosin	YT 201	160 max	10 max	100-105					•	•			•	
	YT 401	140 max	6 max	84-88	10 max					•			•	
ROSIN ESTERS	Glycerol Esters	YT 311	15 max	4 max	86-90		130-190		•	•		•		
		YT 312	15 max	4 max	82-86		100-170	Thermosel, 170°C	•	•		•		
		YT 331	60 - 70	4 max	65-75		100-150	Thermosel, 150°C	•	•				
	Modified Glycerol Esters	YT 315	15 max	4 max	98-102								•	
		YT 318	10 - 20	5 max	100-110								•	
		YT 319	35 - 45	5 max	115-125								•	
	Penta Esters	YT 321	20 max	3+ max	95-100		300 (a);1200 (b)	(a) Thermosel, 170°C (b) Thermosel, 150°C		•		•		
		YT 322	20 max	4 max	105-110		630 (a); 2500 (b)			•		•		
		YT 327	80-90	4 max	90-95					•				
	Modified Penta Esters	YT 323	20 max	4 max	110-115						•		•	
		YT 422	20 max	9 max	123-129						•			•
	Glycerol/ Triethylene Glycol Esters	YT 313	15 max	4 max	74-78									•
		YT 316	15 max	4 max	55-60									•
	Triethylene Glycol Esters	YT 341	20 max	4 max			400-500	Rheometer, 80°C	•			•		
		YT 342	20 max	4 max			80000-120000		•	•		•		
		YT 343	20 max	4 max			25000-55000	Rheometer, 20°C	•			•		
		YT 344	12 max	4 max			7000-13000		•			•	•	
		Polaris II	20 - 30	4 max			15000-25000					•		
Polaris III		45 - 60	4 max			30000-50000					•			
Polaris IV		30 - 50	6 max			400000-500000	Rheometer, 35°C				•			
Polaris V		30 - 50	7 max			40000-50000					•			
Polymerized Rosin Esters	YT 411	15 max	7 max	98-102	10 max								•	
	YT 421	20 max	9 max	112-118									•	
Specially Modified Esters	YT 317	20 max	8 max	130-140									•	
	YT 324	20 max	8 max	115-120									•	
	YT 325	20 max	8 max	120-125									•	

# Food and Beverage

	Product Line	Product	AV (mg KOH/g)	Color (Gardner)	Softening Point (°C)(Mettler)	Taste & Odor
	ROSIN ESTERS	Glycerol Esters for Chewing Gum	YG 111/111K	8 max	8 max	84-88
YG 112/112K			8 max	8 max	80-84	Neg
YG 113/113K			8 max	8 max	87-91	Neg
YG 114/114K			8 max	8 max	76-80	Neg
YG 115/115K			8 max	8 max	97-103	Neg
YG 117			8 max	8 max	89-94	Neg
	Product Line	Product	AV (mg KOH/g)	Color (Gardner)	Softening Point (°C)(R&B)	Taste & Odor
ROSIN ESTERS	Polymerized Glycerol Ester for Chewing Gum	YG 212	9 max	10 max	108-114	Neg
	Penta Ester for Chewing Gum	YG 121	8 max	6 max	88-92	Neg
		YG 122	6 max	8 max	108-114	Neg
	Glycerol Esters for Beverage	YG 113 BG	4-8	8 max	88-92	Neg



## Dispersions

	Product Line	Dispersion Properties					Dry Properties		Applications
		Product	Solids Content (%)	Viscosity (@ 25°C) (mPa.s)	pH	Particle Size (d50 - nm) (max)	AV (mg KOH/g)	Softening Point (°C)	
Water Borne Tackifiers	Rosin Ester	AQUADHES E 7053	52-54	50-300	6,0-8,0	350	< 15	65-75	Tapes and Labels (Pressure Sensitive Adhesives)
		AQUADHES E 7553	52-54	50-300	6,0-8,0	350	< 50	74-84	
		AQUADHES P 750	53-55	100-800	6,5-7,5	600	< 20	72-82	
	Rosin Acid	AQUADHES A 7552	51-53	70-700	6,5-8,5	400	> 100	58-68	
		AQUADHES AQUARIUS II	51-53	50-500	6,5-8,5	350	< 170	---	
		AQUADHES AQUARIUS III	51-53	100-800	7,0-9,0	350	> 110	54-64	
	Hybrid Resin	AQUADHES H 7953	52-54	50-300	5,5-7,5	350	< 20	72-82	
		AQUADHES H 7959	58-60	300-1000	5,5-7,5	350	< 20	72-82	
		AQUADHES H 8556	55-57	100-700	5,5-7,5	350	< 50	88-98	

## Other Products

Product Line	Product	AV (mg KOH/g)	Color (Gardner)	Relative Density	Solids Content (%)	Softening Point (°C)	VOC (PPM)	Viscosity (mPa.s) (Rheometer, 65°C)	Refractive Index (20°C)
Gum Turpentine	Turpentine	2 max	incolor	0,860-0,870					1,4660-1,4750
Rosin Soaps	YS 104 7Na	8-16			69-71				
	YS 301 7Na	8-12			69-71				
	YS 301 8K	8-12			79-81				
Rosin Salts	Capela I		11 max			145-155			
Rosin Blends	YC 821	145-175	10 max			74-90			
	YC 871	70-90	8 max				30 max		
	YB 603	10 max	4 max						
	YB 607	10-20	5 max					5000 - 7000	

# Offset Printing Inks Resins

	Product Line	Product	Viscosity (rheometer, 23°C, 25 s-1, Pa.s)					Cloud Point (°C) (10%, T.O.)				
			% Solids	Test oils					6/9 AF	6/9 AFNew	6/9	6/9 AR Blend
				6/9	6/9 AR Blend	6/9 AR	Rape Seed Methyl Ester	55% Soya Oil + 45% 6/9 AR				
<b>Phenol Modified Rosin Esters</b>	SIRIUS	Sirius I	35		20-35					100-120		
		Sirius II	45	12,5-22,5					130-140			
		Sirius III	40		45-65						95-115	
		Sirius IV	40			20-30					120-135	
		Sirius V	35		7,5-12,5							90-105
		Sirius VI	45		30-45						120-135	
		Sirius IX	40		45-60						125-135	
		Sirius X	40	20-35						115-130		
		Sirius XI	35			20-40						140-170
		Sirius XIV	35		20-30							80-90
		Sirius XV	50	20-35						120-135		
		Sirius XVI	35			8-15						60-80
		Sirius XVII	45				10-20					110-125
		Sirius XIX	45		*35-45						110-130	
		Sirius XXI	38		*20-30							70-90
		Sirius XXV	40		30-40						145-155	
Sirius XXVI	35		80-110							90-110		
<b>Phenol Free Resins</b>	PERSEUS	Perseus I	35					20-40			140-160	
		Perseus II	45					7-15		135-145		
		Perseus VI	47,5		70-105					145-165		

\* 25°C, 80 s-1, Pa.s

# Offset Printing Inks Varnishes

Product Line	Product	% Solids (approx.)	Viscosity (Rheometer, 23°C, 25 s-1, Pa.s)	Cloud Point (10% in T.O. 6/9 AF New)	Tack (Lithotack, 0,4 g, 32.2°C, 400rpm, 60")	Applications					
						Grinding/ Free Flow Varnish	Letdown/ Gel Varnish	Single Varnish	OverPrint Varnish	Heatset Varnish	
<b>Standard Varnishes</b>	SOL	Sol IV	65	35-65	130-180	40-80	•				
		Sol V	67	100-150	90-150	60-100		•			
		Sol VI	70	100-150	90-150	60-110		•			•
		Sol X	50	20-60	90-150	50-100		•			•
		Sol XI	70	15-35	100-150	20-70				•	
		Sol XV	65	25-55	60-110	50-90		•			
		Sol XVI	55	250-300	120-150	80-120			•		
		Sol XVII	80	300-500	80-130	100-160				•	
		Sol XVIII	95	200-280	90-140	100-150			•		

# Alkyd Resins

Product Line	Product	Acid Value (mg KOH/g)	Color (Gardner)	Viscosity (Rheometer, 20° C, Pa.s)	Vegetable Oil Type	
<b>Alkyd Resins</b>	CASSIOPEIA	Cassiopeiae II	15 max	12 max	20 - 40	Linseed
		Cassiopeiae III	11 max	11 max	45 - 55	Soya
		Cassiopeiae IV	7 - 15	18 max	25 - 45	Coconut

# Gravure Printing Inks Resins

Product Line	Product	Viscosity (in Toluene, s)		Dilution Rate (mL Toluene / 100 g resin solution)	
		% Solids	DIN #6 22 °C	To 30" GS 3 mm	22 °C
<b>Phenol Free Resins</b>	CARINA	Carinae I	30	10 - 40	190-280

# Flexo Printing Inks and Lacquers

Product Line	Product	AV (mg KOH/g)	Color (Gardner)	Softening Point (°C)	Viscosity (s) (DIN #4, 25°C, 50% in Toluene)	Viscosity (s) (DIN #4, 25°C, 50% in Ethanol)	Applications				
							Solvent based	Water based	Nitrocellulosic varnishes	Reactive coatings	Fruit cover varnishes
<b>Rosin Adducts and their Esters</b>	PHOENIX (Maleic)	Phoenicis Alfa	140 min	10 max	100-110				•		
		Phoenicis Beta	40 max	10 max	125-135	15-20			•		
		Phoenicis Gama	40 max	9 max	140-150	20-30			•		
		Phoenicis Delta	35 max	9 max	135-140	15-25			•		
	DRACO (Fumaric)	Draconis Alfa	200-225	10 max	145-165		10 - 30	•		•	•
		Draconis Gama	187-208	13 max	152-168		10 - 40	•	•		
		Draconis Capa	135-150	9 max	140-155	20 - 60			•		
		Draconis Lambda	180-200	9 max	140-155		10 - 30	•	•		
		Draco 120 5	5 max	12 max	115-125						•