# Product Guide Adhesive Resins

For Europe, Middle East and Africa



# Better, sustainable chemistry





## Lawter<sup>™</sup> has over 70 years of experience in creating innovative solutions

Our global network of manufacturing plants gives us the ability to serve customers around the world. And with products formulated to meet thousands of diverse end-use applications, we are experts in serving a wide variety of industries. With so many customers counting on us, our sales and production teams are backed by technical service and support that sets the industry standard. In an increasingly competitive world, you can count on Lawter to find a cost-effective and innovative solution to your industrial bonding and binding needs.

## Lawter is a leading global supplier of resins and resin dispersions for adhesives.

Our resin derivatives are also used in applications such as pigments, rubber intermediates, aroma chemicals and road marking.





## **Global presence**

Lawter's customers enjoy the benefits of global manufacturing, paired with regional support. Our production sites are located in:

- United States
- The Netherlands
- Belgium
- South Korea

- China
- New Zealand
- Argentina

## **Technical support**

Your products are important to us. With technical service labs located in key regions of the world, Lawter is able to work closely with customers to achieve product excellence and value.

Our knowledge of resin chemistry paired with our customer's expertise has led to some exciting new products, including our latest waterborne tackifier systems.

#### Renewable raw material sources

Many of our raw materials are derived from renewable sources such as the rosin tapped from pine trees or from the pulp-making process for the paper industry.



# **Research** and development

We work in close cooperation with our customers to improve their results and help create value. This collaboration achieves the required results.

We have a proud history of creating innovative and successful solutions to meet the exact requirements in all the industries we serve. Combining our knowledge of resin chemistry and our customer's expertise in their field of excellence has been the impulse for the creation of new resin types, like our latest waterborne tackifier systems. Customised products are developed by working under mutually confidential conditions. We also have product development centers located in all key regions.

# Snowtack<sup>®</sup> tackifier dispersions

Capitalizing upon technology that dates back to the first stable colloidal resin emulsions produced during the 1920s, Lawter has developed a wide range of tackifying dispersions which are specifically designed to serve the needs of the adhesive and surface coating Industries.

Snowtack® tackifier resin dispersions are aqueous, solvent-free dispersions for the manufacture of pressure-sensitive adhesives based on acrylic, natural rubber or SBR emulsions. When formulated correctly, they provide an excellent balance of adhesion and cohesion to a wide range of substrates. Snowtack® can run on industry standard coaters at high speed due to its excellent stability. Snowtack® is an environmentally friendly component for your adhesive. All Snowtack® grades are alkyl phenol ethoxylate (APE) free.

#### Markets and applications

Waterborne Pressure-Sensitive Adhesive:

- Paper label, filmic label and tape
- Waterborne Adhesive:
- Automotive
- Building and construction
- Bottle Labelling





# **Burez**<sup>®</sup> rosin soaps

Burez® soaps are based upon disproportionated and modified rosins, saponified with sodium or potassium hydroxide. All our soaps have good stability and excellent resistance to crystallization and are available in a range of differing solids and viscosities. The Burez range has been mainly designed for three specific applications: emulsion polymerization, organic pigment production and wet glue formulations.

## Markets and applications

- Emulsifiers for the manufacture of SBR, Polychloroprene rubber, ABS, PVC, and other specialty rubbers
- Modifier/tackifier in wet glues
- Pigment coating
- Lubricant
- Plasticizer











# Pinerez<sup>®</sup> and Pineclear<sup>®</sup> stabilised rosin esters, modified rosin esters, rosin acids and liquid rosin esters

Pinerez<sup>®</sup> tackifier resins are recommended to enhance the adhesive performance in Hot melt and solvent-based adhesive applications. They are stabilized, light-colored resins with excellent viscosity stability, and have excellent compatibility with a range of polymers that are widely used in packaging and pressure-sensitive adhesives. These polymers include EVA, SIS, and SBS block copolymers, natural and synthetic rubber, and acrylics. Low VOC Pinerez products provide performance value in water-based, solvent-free flooring adhesives.

#### Markets

## and applications

- Hot melt adhesives
- Solvent-based adhesives
- Reactive PUR adhesives
- Construction adhesives
- Rubber compounding
- Sealants
- Depilatory waxes
- Chewing gum
- Water-based flooring adhesives
- Coatings
- Road Markings

## Snowtack<sup>®</sup> Tackifier Dispersions

#### Rosin Acid Dispersions

Dispersion	Applications	Dispers	Dispersion Properties					Dry Properties			Sustainability	
		Solids (%)	Viscosity [ mPa•s ]	рН	Stabilizer	Particle size mean [ microns ]	Sieve residue at 100 micron [ ppm ]	Acid value [ mg KOH/g ]	Softening point [°C]	Glass transition point [ °C ]	Bio-Renewable content (dried product) [%]	Life Cycle Analysis Cradle to Gate [kgC02/ Kg wet product]
SNOWTACK® 765A E	General purpose acid grade tackifier to boost adhesion when formulated with acrylic and SBR PSA polymers.	50	500	7.5	Anionic	<0.5	<50	>100	64	12	85	-0.3
SNOWTACK® 🔥 779F E	Higher softening point tackifier for acrylic and SBR PSA polymers with higher cohesive strength and good water resistance.	59	350	8.0	Anionic	<0.5	<50	>100	75	21	85	-0.2

The **Bio Renewable Content** (BRC) is based on the amount of raw materials derived from plants and other renewable agricultural, marine and forestry materials present in the formulation. It is a calculation based on the mass balance from the starting formula.

**Life Cycle Analysis:** The carbon footprint of products (PCF) is calculated using a tool developed by CE Delft in line with the ISO 14040 standard. Carbon footprint of all raw materials, energy and waste treatment are included in the calculations up to the point where the product leaves our company gate (cradle to gate). The carbon footprint of the transportation from Lawter to the client is not included. Raw material carbon footprints are taken from databases, suppliers or proxies. The values used in this brochure include biogenic carbon storage.

Rosin Ester Dispersions												
Dispersion	Applications	Dispersi	ion Propertie	s				Dry Properties			Sustainability	
		Solids (%)	Viscosity [ mPa•s ]	рH	Stabilizer	Particle size mean [ microns ]	Sieve residue at 100 micron [ ppm ]	Acid value [ mg KOH/g ]	Softening point [°C]	Glass transition point [ °C ]	Bio-Renewable content (dried product) [ % ]	Life Cycle Analysis Cradle to Gate [kgC02/ Kg wet product]
SNOWTACK® SE724G E	Low softening point tackifier designed to provide superior adhesive performance in PSA polymers for a wide range of substrates.	51	300	9.0	Polymeric	<1.0	<50	<25	37	-8	76	-0.3
SNOWTACK® 😽 SE772A E	Mid softening point tackifier with balance of tack and peel adhesion for PSA label applications.	50	500	7.6	Anionic	<0.4	<50	<20	67	15	89	-0.3
SNOWTACK® SE780G E	Tackifier with excellent resultant cohesive strength, adhesion and water resistance for PSA tape and label applications.	55	300	9.0	Polymeric	<0.6	<50	<20	83	34	96	-0.5
SNOWTACK® SE780K E	Tackifier for PSA polymers resulting in good balance of adhesion and cohesive strength with smaller mean particle size.	55	300	8.7	Polymeric	<0.5	<50	<20	79	30	96	-0.5
SNOWTACK® SE785G E	Tackifier for PSA polymers resulting in high cohesion, good balance of adhesion, excellent coating stability and wetting.	56.5	350	9.0	Polymeric	<0.5	<50	<20	80	34	94	-0.5
SNOWTACK® 100G E	High softening point tackifier for PSA tape and label applications requiring good cohesion and mandrel performance.	56.5	300	9.0	Polymeric	<0.6	<50	<20	99	48	96	-0.3
SNOWTACK® GE767C E	Tackifier for packaging and can sealing adhesives, compatible with acrylic, SBR and VAE polymers.	55	300	7.5	Anionic	<0.5	<50	<25	70	20	96	-0.6

## Snowtack<sup>®</sup> Tackifier Dispersions (continued)

#### Formulated Dispersions

Dispersion	Applications	Dispersion Properties						Dry Properties			Sustainability	
		Solids (%)	Viscosity [ mPa•s ]	рН	Stabilizer	Particle size mean [ microns ]	Sieve residue at 100 micron [ ppm ]	Acid value [ mg KOH/g ]	Softening point [°C]	Glass transition point [ °C ]	Bio-Renewable content (dried product) [%]	Life Cycle Analysis Cradle to Gate [kgC02/ Kg wet product]
SNOWTACK® 875F E	Tackifier designed to improve adhesion to apolar substrates with 2EHA acrylic and SBR PSA polymers.	59	300	8.0	Anionic	<0.4	<50	112	75	21	72	0.3
SNOWTACK® 881G E	High softening point tackifier designed to improve adhesion to apolar substrates with 2EHA acrylic and SBR PSA polymers.	59	300	9.0	Polymeric	<0.6	<50	<20	96	40	49	1.3
SNOWTACK® 895H E	High softening point tackifier based on high grade hydrocarbon resin for typical application contact and construction adhesives.	52	300	10.5	Anionic	<0.4	<100	<5	100	48	6	2.6
SNOWTACK® TP600G E	High softening point tackifier based on high grade terpene phenolic resin for typical application contact and construction adhesives.	57	300	9.0	Polymeric	<0.5	<50	<5	100	48	79	0.7

## Burez<sup>®</sup> Rosin Soaps

## Rosin Soaps

Soap	Applications	Solids (%)	Acid Value (mgKOH/g)	Abietic acid (%)	Dehydro Abietate (%)	Biorenewable content (dried product) [ % ]	Life Cycle Analysis Cradle to Gate [kgCO2/ Kg wet product]
BUREZ® NA45 E 🛛 😽	Sodium soap of modified rosin stabilized against crystallization for use in wet bottle labelling adhesives.	45	13	-	-	90	-0.2
BUREZ® DRS S70 E 🛛 😽	Sodium soap of disproportionated gum rosin, primary application as emulsifier in emulsion polymerization.	70	11	< 0.2	38	94	-0.7
BUREZ® DRS P80 E 🔹	Potassium soap of disproportionated gum rosin, primary application as emulsifier in emulsion polymerization.	80	11	< 0.2	42	91	-0.3
BUREZ® K85 2500 E 😽	Potassium soap of disproportionated tall oil rosin, primary application as emulsifier in emulsion polymerization.	85	10	< 0.2	50	91	-0.7

## Pinerez<sup>®</sup> Tackifier Resins

#### Resins for Flooring Adhesives

Resin	Applications	Ring & Ball Softening Point (°C)	Gardner Color (50% Soln.)	Acid Value (mgKOH/g)	Viscosity (mPa.s)	Bio-Renewable content [%]	Life Cycle Analysis Cradle to Gate [kgCO2/Kg product]
PINEREZ® 7016 E 🔥	A low viscosity ester of rosin that has low VOCs. Pinerez 7016 E improves adhesion and meets the requirements for EC1 and Blue Angel adhesives.	-	7	12	1000 @ 50°C	92	-0.3
PINEREZ® 7024 E 😽	The typical use of Pinerez 7024 E is to improve adhesion in flooring adhesives meeting the requirements for EC1 and Blue Angel adhesives.	-	7	9	4500 @ 50°C	75	-0.7
PINEREZ® 7025 E 😽	Pinerez 7025 E is a formulated tackifier to improve adhesion in flooring adhesives meeting the requirements for EC1 and Blue Angel adhesives.	-	7	25	9000 @ 50°C	77	-0.7
PINEREZ® 7053 E 😽	Pinerez 7053 E is a blend of resins and plasticizer for use as a Resin Melt tackifier meeting the requirements for EC1 and Blue Angel adhesives.	-	7	70	1000 @ 70°C	71	-0.4
PINEREZ® 3090 E 😽	Pinerez 3090 E is a non crystallizing rosin acid tackifier, that has low VOCs and meets the requirements for EC1 and Blue Angel adhesives.	80	7	150	-	96	-1.2
PINEREZ® 3092 E 😽	Pinerez 3092 E is a non crystallizing rosin acid tackifier. Typical application as tackifier suitable for solvent based SBR construction adhesives.	85	8.5	145	-	95	-1.2

Resins for Road Marking Adhesives										
Resin	Applications	Ring & Ball Softening Point (°C)	Gardner Color (50% Soln.)	Acid Value (mgKOH/g)	Viscosity (mPa.s)	Bio-Renewable content [%]	Life Cycle Analysis Cradle to Gate [kgC02/Kg product]			
PINEREZ® 2400M E 🥎	Pinerez 2400M E is a stabilized modified tall oil rosin ester suitable for road marking applications, giving good adhesion to glass beads.	100	4	14	-	86	-1.3			
PINEREZ® 2800 E 😽	Pinerez 2800 E is a unique modified tall oil rosin ester for road marking that does not require Xi labelling. Gives good adhesion to glass beads.	103	4	14	-	83	-0.9			
PINEREZ® 2240 E 😽	Pinerez 2240 E is a higher softening point modified ester of stabilized rosin.	138	5	14	-	80	-1.3			

## Pinerez<sup>®</sup> Tackifier Resins (continued)

#### Resins for Hot Melt Adhesives

Resin	Applications	Ring & Ball Softening Point (°C)	Gardner Color (50% Soln.)	Acid Value (mgKOH/g)	Viscosity (mPa.s)	Bio-Renewable content [%]	Life Cycle Analysis Cradle to Gate [kgCO2/Kg product]
PINEREZ® 2484 E 😽	Pinerez 2484 E is a stabilized tall oil rosin ester suitable for use to improve tack and adhesion in hot melt adhesives.	82	4	14	-	99	-1.7
PINEREZ® 2385 E 😽	Pinerez 2385 E is a stabilized gum rosin ester suitable for use to improve tack and adhesion in hot melt adhesives.	85	4	14	-	99	-1.4
PINEREZ® 2394 E 😽	Pinerez 2394 E is a stabilized gum rosin ester suitable for use to improve tack and adhesion in hot melt adhesives.	98	4	14	-	88	-1.0
PINEREZ® 2493 E 😽	Pinerez 2493 E is a stabilized tall oil rosin ester specifically designed to improve tack and adhesion of pressure sensitive hot melt adhesives.	95	4	14	-	90	-1.5
PINEREZ® 2498 E 😽	Pinerez 2498 E is a stabilized tall oil rosin ester suitable for use to improve tack and adhesion in hot melt adhesives.	98	4	14	-	89	-1.3

## Pineclear<sup>®</sup> Tackifier Resins

#### **Resins for Hot Melt Adhesives**

Resin	Applications	Ring & Ball Softening Point (°C)	Gardner Color (50% Soln.)	Acid Value (mgK0H/g)	Viscosity (mPa.s)	Bio-Renewable content [%]	Life Cycle Analysis Cradle to Gate [kgC02/Kg product]
PINECLEAR® 2484 E 😽	Pineclear 2484 E is a stabilized light colored ester based on tall oil rosin suitable for use to improve tack and adhesion in hot melt adhesives.	82	3	14	-	99	-1.7
PINECLEAR® 2498 E 😽	Pineclear 2498 E is a stabilized light colored ester based on tall oil rosin suitable for use to improve tack and adhesion in hot melt adhesives.	98	3	14	-	89	-1.3





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