

Pressure Sensitive Adhesives

Optimum chemistry for tape applications

Today's tape adhesives are required to provide a wide range of properties to meet the ever-increasing demands of tape applications.

Dow is a recognized world leader in pressure sensitive adhesives (PSA) knowledge, innovation, customer service, reliable supply, and value. Dow offers both aqueous and solvent-borne PSAs for a variety of tape applications including:

- · Carton sealing tape
- · Low noise tape
- Masking tape
- Overlamination tape
- · Specialty tape

Dow PSAs offer:

- Adhesion and Cohesion Performance: Excellent peel and tack, range of shear and tensile strengths, good adhesion to low surface energy substrates, adaptation to film stresses, plasticizer migration resistance
- Conversion Efficiency: Good dry flow, high line speeds, higher solids for fast drying, exceptional control during unwind and box closing
- Durability: Non-yellowing, UV resistance, good humidity sensitivity, wide temperature range
- Aesthetics: Excellent clarity and color stability

The following tables offer an at-a-glance catalog of Dow's proven options.

Table 1: Aqueous tape adhesives

Product	Tape Application	175.105 FDA	TS (%)	рН	Visc. (cps)	Tg (°C)	Peel	Loop Tack	Shear	Comments
RHOPLEX™ N-1031D	Various	Yes	54.0	8.6	80	-29	Low- Med	Low- Med	High	Low peel, very high shear, good plasticizer migration resistance.
RHOPLEX™ N-580	Various	Yes	55.0	8.4	100	-42	Med	Med	High	Medium peel/shear base.
RHOPLEX™ N-619	Various	Yes	57.0	7.8	100	-35	High	High	Low	High peel/low shear base, very good adhesion to polyolefins.
ROBOND™ PS-2001NA	Various	Yes	51.0	7.3	50	-41	Med	Med	High	For carton sealing and overlamination. Excellent dry flow, clarity, adaptation to film stresses.
ROBOND™ PS-2000	Carton sealing tape	Yes	54.5	7.6	75	-42	Med	Med	High	High clarity, good adhesion to cardboard, fast drying.
ROBOND™ PS-2020	Carton sealing tape	Yes	53.5	8.0	50	-42	Med	Med	High	Clear to the core packaging tape adhesive.
ROBOND™ PS-90	Low noise tape	Yes	53.0	9.4	200	-42	Med	Med	High	Good adhesion to cardboard, high shear, exceptional box closing.
ROBOND™ PS-9005	Masking tape	No	58.0	8.5	350	-51	Low	Low	High	Painter's grade masking tape adhesive, excellent UV resistance.
ROBOND™ PS-9181HV	Specialty tape	Yes	55.5	7.5	750	-42	High	Med	Med	UL181 duct sealing tape adhesive.
ROBOND™ PS-8120HV	Removable	Yes	54.0	8.8	500	-50	Low	Low	High	Minimal adhesion build, suitable for PVC and PET applications.
ROBOND™ FD-07N	Multiple	Yes	60.0	8.5	150	-44	Med	Med	High	Fast drying, good adhesion to cardboard, suitable for multiple applications and surfaces.
ROBOND™ PS-94	Overlam tape	Yes	53.0	8.0	150	-42	Med	Med	High	High clarity, good cold flow, high shear. Suitable for overlaminate applications.

Data per Dow testing. Typical properties, not to be construed as specifications. Additional information available upon request.

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Table 2: Solvent-rubber based tape adhesives

Product	Tape Application	175.105 FDA	TS (%)	Visc. (cps)	Peel	Loop Tack	Shear	Comments
MORSTIK™ 117	Specialty tape	Yes	48.0	5000	High	High	High	Excellent high shear resistant and moderately high temperature resistant mounting applications. Maintains good peel and tack.
MORSTIK™ 125	Specialty tape	Yes	45.0	4500	Low- Med	Low- Med	High	Removable tapes and labels. Series of products offers higher and lower peel/tack while maintaining clean removability.
MORSTIK™ 153	Specialty tape	Yes	50.0	1500	Very High	Very High	High	Product assembly applications. Gives adhesion to a variety of plastics where acrylics will not usually provide acceptable bonds.

Data per Dow testing. Typical properties, not to be construed as specifications. Additional information available upon request.

Table 3: Release coats, barrier coatings, and saturants

Product	Application	TS (%)	рН	Visc. (cps)	Tg	Comments
RHOPLEX™ R-253	Release coat	40.0	9.0	75	33	Self crosslinking paper release coating for SNR, HM, and SBR adhesives. Solvent resistant.
RHOPLEX™ R-225	Release coat	38.0	9.4	30	32	Paper release coating for SNR, HM, and SBR adhesives.
RHOPLEX™ TR-407	Saturant, barrier	45.0	2.3	50	34	Acrylic saturant.
RHOPLEX™ GL-618	Saturant, barrier	47.0	8.5	200	36	Acrylic saturant, low foam.

Data per Dow testing. Typical properties, not to be construed as specifications. Additional information available upon request.

Experts with answers

Dow scientists and technicians, our "Experts with Answers," have many years of experience in the adhesives, coatings, and tape industries and a wide knowledge base of the technologies used in these fields. Dow technical personnel seek to fully understand the end-use processes and requirements, while Dow's researchers stay on the cutting edge of technological improvements.

Collaborate to innovate

While we believe Dow has some of the best and brightest people in the industry, we know that collaboration is key and that bringing other experts to the table is the best way to discover the ideal solution.

Nowhere is the collaborative spirit greater than when working side-by-side with one or more of Dow's adhesives and packaging professionals. Together, whether at customers' facilities, or at one of Dow's state-of-the-art technical centers, there are opportunities for teamwork, handson support, and sharing that can rapidly advance the creation of new products that succeed in the marketplace.



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