

**Technology Information** 



Waterbased Dispersions for Adhesives (PSA & Lamination)



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Specialty Products

Latest updateAlberdingk Boley GmbH | Düsseldorfer Str. 53 | 47829 Krefeld | Germany<br/>Phone +49 2151 528-0 | Fax+49 2151 573643 | info@alberdingk-boley.de | www.alberdingk-boley.deFebruary 20, 2025Alberdingk Boley, Inc. | Greensboro, NC| USA | www.alberdingkusa.com<br/>Alberdingk Resins (Zhuhai) Co., Ltd. | Zhuhai City | P. R. China | www.alberdingkresins.com



## **ALBERDINGK BOLEY in a nutshell**

Leading global manufacturer of environmentally friendly water-based binders and oils with unique properties to refine, refurbish, bind and protect multiple types of substrates	Medium sized, privately owned company > a partner to our customers for more than 250 years	> 500 employees
Dynamic, Innovative and flexible Pioneers in biobased polymer dispersions	<b>Dispersions:</b> Acrylic, Vinyl acetate, Polyurethane and hybrid dispersions <b>Oils:</b> Linseed oil, Castor oil, Derivatives	<b>Locations:</b> • Krefeld, Germany • Kerpen, Germany • Leuna, Germany • Treviso, Italy • Congleton, UK • Greensboro, USA • Shenzhen, China • Zhuhai, China

For more information about ALBERDINGK BOLEY and our product offerings, visit <u>www.alberdingk-boley.de.</u>

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# **Application fields**

- Specialty Tapes
- Labels
- Paper adhesives (packaging)
- Protective Films
- Impregnation
- Building and Construction
- Heat Activating Adhesives



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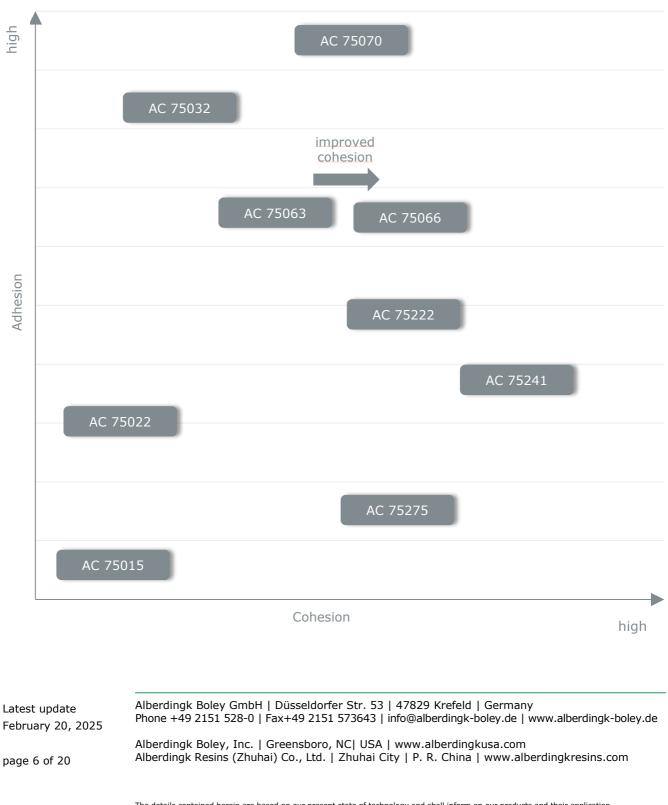
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#### **Pressure sensitive adhesives**

#### **General Product Overview**





## **Product Selection Pressure Sensitive Adhesives**

	Permanent Tapes / Labels	Removable Tapes / Labels	Protective Films	Tapes for Construction	Tapes for Automotive	Packaging Adhesives	Impregnation of Sealing Tapes / Tackifier	High Water Resistance	Sealants	Tapes for Low Emission Flooring (EMICODE EC1 Plus)	Regulation (10/2011/EU)	BfR XIV	FDA Regulation 21 CFR 175.105	Swiss Ordinance 817.023.021 Annex 10
AC 75015							х				✓	~	~	~
AC 75022	х					х	х				✓	~	~	~
AC 75032	х			х				х				~	~	~
AC 75063	х					х				х		~	~	~
AC 75066	х				х						~		~	~
AC 75070	х			х	х	х				х	✓	~	~	✓
AC 75222	х				х	х						~	~	~
AC 75241	х				х	х			х			~	~	~
AC 75275		х	х						х		✓	~	~	
AS 2040									х					

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#### **Product Overview Pressure Sensitive Adhesives**

	Solids [%]	pH-Value	Viscosity Brookfield [mPas]	Tg [°C]	Loop Tack [N/inch]	Peel Strength, 180° [N/inch]	Shear Resist., RT, 10N/6.25 cm² [h]	Dynamic Shear Resist. [N/cm²]	Heat Resistance "Ford" [°C]	Features
AC 75015	60	6.5- 7.5	100- 1,000	-56	n.a.	n.a.	n.a.	n.a.	n.a.	Very soft, low temperature adhesion
AC 75022	67	4.0- 6.0	200- 1,500	-40	35	17	0.5	30	52	Very soft, high initial tack, high solid
AC 75032	60	6.0- 7.0	500- 1,500	-35	26	26	3	50	90	High water resistance, high initial tack
AC 75063	65	3.5- 5.0	1,000- 3,000	-39	23	24	30	55	130	Good balance of adhesion and cohesion
AC 75066	62	5.0- 6.5	500- 3,000	-39	29	24	>50 0	60	>160	High cohesion and heat resistance
AC 75070	65	3.0- 5.0	2,000- 5,000	-34	28	26	25	55	125	High Peel, good balance of adhesion and cohesion, high initial tack
AC 75222	68	4.5- 5.5	2,000- 5,000	-46	27	21	>50 0	60	>160	High cohesion and heat resistance, high solid
AC 75241	65	4.0- 5.0	3,000- 5,000	-32	20	16	>1, 000	60	>160	Very high cohesion and heat resistance, high initial tack
AC 75275	60	4.5- 5.5	100- 1,000	-51	10	10	500	61	>160	High cohesion and heat resistance, removable
AS 2040	59	7,0- 9,0	1,500- 4,500	8	n.a.	n.a.	n.a.	n.a.	n.a.	Acrylic Styrene copolymer dispersion. For flexible sealants and screeds, very good cement and bitumen-compatibility

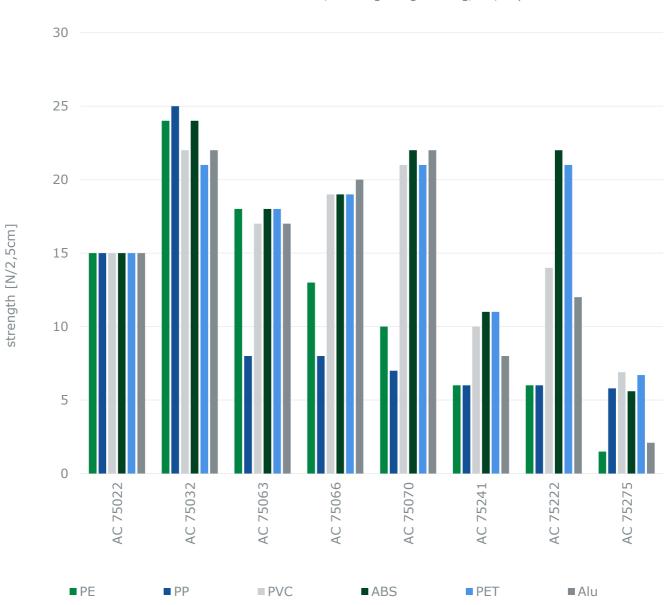
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# Application Data / Peel Strength on different substrates



FINAT Test Method FTM 1, Coating Weight: 30 g/m<sup>2</sup>, dry

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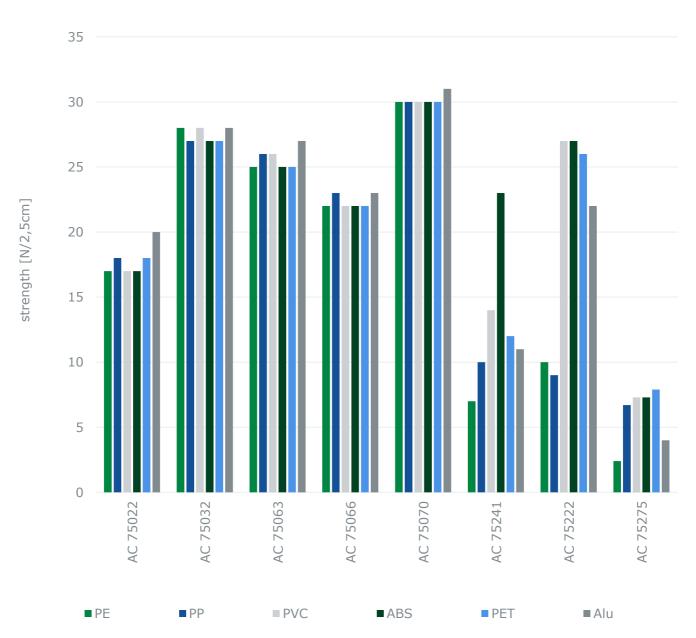
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## Application Data / Peel Strength on different substrates



FINAT Test Method FTM 1, Coating Weight: 65 g/m<sup>2</sup>, dry

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### Suitable raw materials for formulation

#### **Defoamers:**

Tego Antifoam 2-57 (Evonik) Tego Foamex 822 (Evonik) BYK-094 (BYK Chemie) BYK-039 (BYK Chemie)

#### Substrate wetting agents:

BYK-3400 (BYK Chemie) Tegopren 5840 (Evonik) Tegopren 5890 (Evonik) Dow Corning 67 (Dow Corning) BYK-3410 (BYK Chemie) BYK-349 (BYK Chemie)

#### **Rheology modifiers:**

Tego Rheo 8600 (Evonik), for food contact application RHEOBYK-H 3300 VF (BYK Chemie) Coapur 830 W (Coatex) Rheovis PU 1190 (BASF) Coapur XS 22 (Coatex)

Tego Rheo 8510 (Evonik) Coatex BR 125 NPF (Coatex) Borchi Gel L 75 N (Borchers)

We recommend to check the properties of the formulation properly, as the add-on of additives can influence adhesive properties.

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#### **Product Overview Laminating Adhesives**

	Industrial Lamination	Film Lamination (Heat Seal)	Paper Lamination/ Packaging	Leather Assembly	Transfer Adhesives	Water Barrier (Paper)	Fat Barrier (Paper)	Primer	Hydrolysis Restistance	BfR XIV	BfR XXXVI	Regulation (10/2011/EU)	FDA Regulation 21 CFR 175.105, CFR 176.170, CFR 176.180	Swiss Ordinance 817.023.021 Annex 10
AC 2005	x		x			x	x			~	✓	~	~	~
AC 4605			x			x	x			~	✓	~	~	~
AC 5503	x	x									~	~	~	~
Ren AC 5605			x			x				~	✓	~	~	~
U 3251	x	x												
U 355 VP*	x	x		x	x				x					
U 400 N*	x	x			x			x	x					
U 4023 VP*	x	x	x		x				x					
U 4040*	x				x			x	x					
U 4101*	x	x		x	x				x					
U 460 VP*	x	x			x			x	x					

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# **Polyurethanes/Acrylics for Laminating Adhesives**

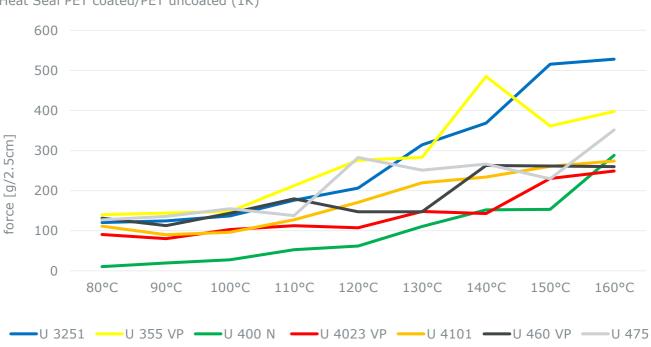
	Solids content [%]	pH- value	Viscosity Brookfield [mPas]	Activating- temperature [°C]	Features
AC 2005	50	8.0-9.0	20-2,000	>80	Heat sealable coatings for food packaging, good water & fat barrier properties
AC 4605	50	8.0-9.0	40-600	>80	Heat sealable coatings for food packaging, good barrier properties on paper
AC 5503	50	7.0- 9.0	1,000-5,000	> 80	Self-crosslinking acrylate, for lamination
Ren AC 5605 VP	50	8.0-9.0	20-2,000	>80	Biobased AC 4605, Heat sealable coatings for food packaging, good barrier properties on paper
U 3251*	40	7.0- 8.0	20-200	> 70	Polyester PU for lamination, soft and flexible
U 355 VP	35	7.0-8.5	500-1000	> 80	Polyether PU for lamination, good adhesion to a variety of substrates
U 400 N*	40	7.0- 8.0	20-200	> 110	Polyether PU for lamination, high hydrolysis resistance, adhesion primer
U 4023 VP	40	7.0-8.5	20-500	> 80	Polyether PU, blister varnish for cardboard & plastics with low activation temperature
U 4040	45	7.0- 8.0	100-2,000	> 110	Lamination, adhesion primer especially for shoe soles (EVA), good heat- and water resistance
U 4101*	40	7.0- 8.5	50-750	tacky	Polyether PU, tacky, good adhesion to different substrates, high hydrolysis resistance, low activation temperature, contact adhesives
U 460 VP*	40	7.0- 8.5	50-500	> 80	Polyether PU for lamination, good adhesion to different substrates, furniture foil lamination with good heat- and hydrolysis resistance, leather adhesives

\*Also available with renewable content, details upon request

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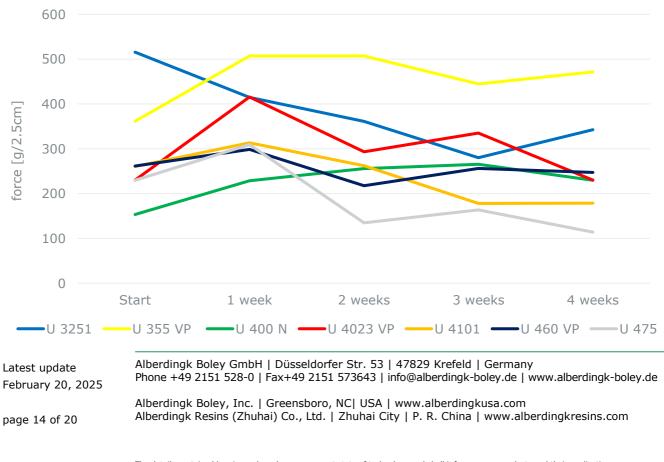


## **Application Data Polyurethanes/Acrylics for Laminating Adhesives**



Heat Seal PET coated/PET uncoated (1K)

Humidity Seal Retention PET coated/PET uncoated (1K)





## **Specialty Products**

	Solids content [%]	pH-value	Brookfiled Viscosity [mPa s]	Features
AC 2575	40	4.0-4.5	10-300	For hobby glue (when neutralized with potassiumhydroxide/ ammonia), washable
U 205	40	7.0-8.0	20-200	Release coating for craft liner
SC 4450	50	7.5-8.5	500-5,000	Mixing Partner for polychloroprene adhesives to improve cohesion and heat stability
U 4000*	30	8.0-9.5	10-200	Primer for plastic substrates (e.g. corona treated BOPP film), suitable for indirect food contact (EU No.10/2011)

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