

## Liddings

Coatings, Heat Seal Lacquer, Laminating Adhesives and Primer

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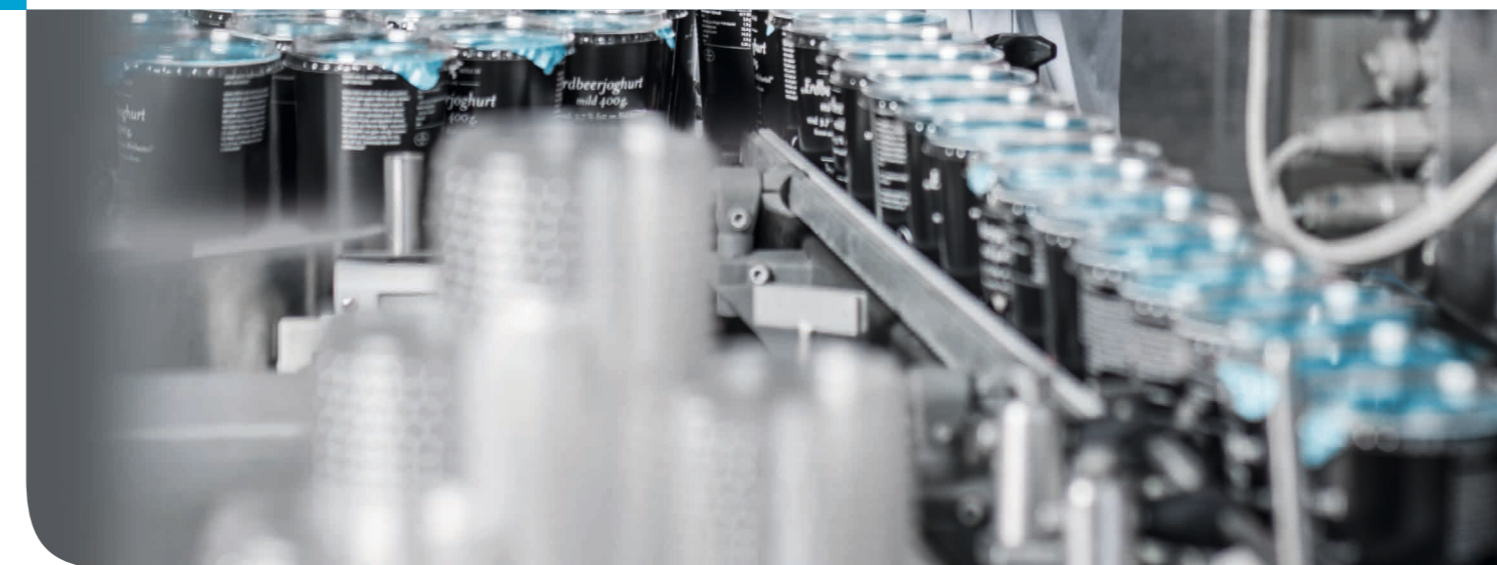
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Customized ACTEGA-Solutions for Liddings  
in regards to:

- Required opening solutions
- Production lines of our customers
- Individual substrates and sealing partners

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## Coatings 1/2

Substrate			Product-function	Application Area	Technical Information										Food Contact Regulation ***					Product Description	Productname	Company						
Paper	Foil	Film			Solids [%]	Measuring Methods*	Film Weight** [g/m²]	Drying Conditions			Formulation		Application Process		BPA-NI		PVC-NI	MF-NI	FDA		EU	Swiss Ordinance	China	Nestlé approved				
								Recommend-ed PMT / Substratetem-perature [°C]	IR Dryer	Hot Air	Solvent-based (SB)	Water-based (AQ)	Gravure	Flexo					175.105	175.300								10/2011/ EC
	●		Protective	exterior	37 – 41	1	1,0 – 1,4	100 – 180			●		●		●			●	●	●	●	●				OPV, Heat pressure resistant, clear, glossy	ACTEcoat SL-819 series	ACTEGA Rhenania
	●		Protective	exterior	34 – 38	1	1,3 – 1,7	120 – 150				●	●		●			●	●	●	●	●	●			Heat pressure resistant, imprintable with flexo-, gravure- and UV-inks, clear, glossy	ACTEcoat SW-140-0371	ACTEGA Rhenania
	●		Protective	exterior	35 – 39	1	0,8 – 1,2	120 – 150				●	●		●			●	●	●	●	●	●			Highly heat pressure resistant, imprintable with flexo-, gravure- and UV-inks, clear, glossy	ACTEcoat SW-140-0490	ACTEGA Rhenania
●	●	PE	Protective	exterior	32 – 36	1	0,8 – 1,2	<120				●	●		●			●	●	●	●	●	●			Heat pressure resistant, imprintable with flexo-, gravure- and UV-inks, clear, glossy	ACTEcoat SW-001-0277	ACTEGA Rhenania
	●		Protective	exterior	36 – 38	1	1,0 – 2,0	>150			●		●		●	●		●	●	●	●	●	●			Retortable, imprintable with 2 component gravure & flexo-inks, for non-pretreated aluminum, deep-drawn, clear, glossy	ACTEcoat K-9007-30	ACTEGA Rhenania
	●		Protective	exterior	30 – 40	1	0,8 – 1,2	120 – 150				●	●		●			●	●	●	●	●	●			Retortable, imprintable with 2 component gravure & flexo-inks, for non-pretreated aluminum, glossy, colored	ACTEcoat SW-140 series	ACTEGA Rhenania
	●	BoPP, PP, oPP	Protective	exterior	40 – 50	2	1,0 – 2,0		●	●		●		●						●		●				Neutral coating	TerraWet Protective Coating G 9/221 M	ACTEGA Terra

\* Measuring methods:

1) After DIN EN ISO 3251 usually measured by 30 min, 180°C

2) After Sartorius Moisture Analyzer

\*\* Dry, divergent weight possible

\*\*\* ● Not directly listed, but in compliance

● Only non-alcoholic food

## Coatings 2/2

Substrate			Product-function	Application Area	Technical Information										Food Contact Regulation ***					Product Description	Productname	Company					
Paper	Foil	Film			Solids [%]	Measuring Methods*	Film Weight** [g/m²]	Drying Conditions			Formulation		Application Process		BPA-NI		PVC-NI	MF-NI	FDA		EU	Swiss Ordinance	China	Nestlé approved			
								Recommend-ed PMT / Substratetem-perature [°C]	IR Dryer	Hot Air	Solvent-based (SB)	Water-based (AQ)	Gravure	Flexo					175.105	175.300							
●	●	BoPP	Protective	exterior	37 – 42	2	1,0 – 2,0		●	●		●		●							●		●	Neutral coating	TerraWet Protective Coating G 9/221 FoodSafe	ACTEGA Terra	
	●	BoPP, PP, oPP	Top Coat	exterior	40 – 45	2	1,0 – 2,0		●	●		●	●	●				●			●		●	Matt coating for film	TerraWet Matt Coating G 16/281	ACTEGA Terra	
●	●	BoPP	Top Coat	exterior	37 – 42	2	1,0 – 2,0		●	●		●	●	●							●		●	Gloss coating	TerraWet Gloss Coating G 9/230 FoodSafe	ACTEGA Terra	
●	●	BoPP	Top Coat	exterior	37 – 42	2	1,0 – 2,0			●		●		●							●		●	Gloss coating	TerraWet Gloss Coating G 10/117	ACTEGA Terra	
	●	BoPP, PP, oPP	Top Coat	exterior	25 – 30	2	0,8 – 2,0			●		●	●	●							●			Transparent topcoat with good scratch resistance, printable	TerraWet Primer G 16/305	ACTEGA Terra	
	●	BoPP, PP, oPP	Heat resistant	exterior	40 – 45	2	1,0 – 2,0		●	●		●	●	●							●		●	Matt coating for film, good heat resistance	TerraWet Matt Coating G 16/197	ACTEGA Terra	
●	●	BoPP	Heat resistant	exterior	25 – 30	2	1,0 – 2,0			●		●	●	●										Matt coating for film, printable, good heat resistance	Terra Wet Primer G 16/109	ACTEGA Terra	

\* Measuring methods:

1) After DIN EN ISO 3251 usually measured by 30 min, 180°C

2) After Sartorius Moisture Analyzer

\*\* Dry, divergent weight possible

\*\*\* ● Not directly listed, but in compliance

● Only non-alcoholic food

# Heat Seal Lacquer 1/3

Substrate			Sealing Partner									Technical Information										Food Contact Regulation**						Product Description	Productname	Company		
Paper	Foil	Film	PP	PS	APET	PE	PVC	PLA	Itself	Alu	Others	Sealing Values [N]	Sealing Temperature [°C]	Formulation					Application Process	BPA-NI	PVC-NI	FDA		EU	Swiss Ordinance	China	Nestlé approved					
														MEK (Methyl-Ethyl-Keton)	EAC (Ethyl-Acetat)	Butyl-acetat	Propyl-acetat	Others				Water-based (AQ)	Gravure								Flexo	175.105
	●		●	●			●				PETP	10 – 14	200	●						●			●	●	●	●	●	●	●	Specialty, excellent hot-tack, good resistance to aggressive fillings, opaque, high performance	ACTEseal HS-346	ACTEGA Rhenania
	●		●	●			●				PETP	9 – 11	200	●						●		●	●	●	●	●	●	●	●	Excellent hot-tack, good resistance to aggressive fillings, opaque, PVC free version of HS-346	ACTEseal HS-356-N	ACTEGA Rhenania
	●		●									4 – 8	200		●					●		●	●	●	●	●	●	●	Suitable for machines with low drying capacity, opaque, especially used for coffee capsules, heat resistance	ACTEseal HSC-451-2	ACTEGA Rhenania	
	●		●	●								8 – 12	200	●	●					●		●	●	●	●	●	●	●	●	Good hot-tack and good resistance to aggressive fillings, opaque, dairy	ACTEseal HS-700-TR-90	ACTEGA Rhenania
	●		●	●								7 – 11	300	●						●		●	●	●	●	●	●	●	●	Good hot-tack and good resistance to aggressive fillings, opaque, dairy and fatty	ACTEseal HM-170-E60	ACTEGA Rhenania
	●		●	●	●		●					8 – 12	200		●					●		●	●	●	●	●	●	●	●	Moderate hot tack and resistance to aggressive fillings, suitable for machines with low drying capacity, opaque, not fatty	ACTEseal HSC-535 series	ACTEGA Rhenania
●	●	PET		●								9 – 13	200		●					●			●	●	●	●	●	●	●	High seal strength, paper/PET, Alu/Pet, opaque, high hot-tack	ACTEseal HSC-174	ACTEGA Rhenania

\*TBT = to be tested  
 \*\* ● Not directly listed, but in compliance  
 ● Only non-alcoholic food  
 ● Only non fatty food

## Heat Seal Lacquer 2/3

Substrate			Sealing Partner									Technical Information										Food Contact Regulation**						Product Description		Productname	Company		
Paper	Foil	Film	PP	PS	APET	PE	PVC	PLA	Itself	Alu	Others	Sealing Values [N]	Sealing Temperature [°C]	Formulation					Application Process	BPA-NI	PVC-NI	FDA		EU	Swiss Ordinance	China	Nestlé approved						
														MEK (Methyl-Ethyl-Keton)	EAC (Ethyl-Acetat)	Butyl-acetat	Propyl-acetat	Others				Water-based (AQ)	Gravure							Flexo	175.105	175.300	10/2011/EC
●	●	PET		●								6 – 10	180		●						●		●	●	●	●	●	●	●	●	Medium seal strength, optimized H <sub>2</sub> O <sub>2</sub> retention, opaque, suitable for high coat weight, PVC-free, with good hot-tack	ACTEseal HSC-158	ACTEGA Rhenania
		PET			●				●	●		7 – 11	200	●							●		●	●	●	●	●	●	●	●	High seal strength at low temperature to itself and APET, opaque	ACTEseal HSC-147-G	ACTEGA Rhenania
		PET	●	●	●							4 – 6	180		●					●		●	●	●	●	●	●	●	●	●	Universal, for nearly transparent / translucent lids	ACTEseal HSC-176-1	ACTEGA Rhenania
		PET	●	●		●						4 – 6	200		●					●		●	●	●	●	●	●	●	●	●	Suitable for CoEx OPP, needs corona treatment, opaque	ACTEseal HSC-500-HV	ACTEGA Rhenania
		PET	●	●		●	●					6 – 10	200		●					●		●	●	●	●	●	●	●	●	●	Universal, excellent seal to PE, opaque	ACTEseal HSC-538-4-4	ACTEGA Rhenania
	●			●	●		●	●			PVDC	6 – 10	200		●	●				●		●	●	●	●	●	●	●	●	●	Standard Heat Seal Coating, opaque	ACTEseal HM-050 (opaque)	ACTEGA Rhenania
	●		●									8 – 12	170	●						●		●	●	●	●	●	●	●	●	●	High resistance to aggressive fillings, opaque, suitable for hard foil	ACTEseal HM-150-0316	ACTEGA Rhenania

\*TBT = to be tested

\*\* ● Not directly listed, but in compliance

● Only non-alcoholic food

● Only non fatty food

# Heat Seal Lacquer 3/3

Substrate			Sealing Partner									Technical Information										Food Contact Regulation**						Product Description		Productname	Company	
Paper	Foil	Film	PP	PS	APET	PE	PVC	PLA	Itself	Alu	Others	Sealing Values [N]	Sealing Temperature [°C]	Formulation					Application Process	BPA-NI	PVC-NI	FDA		EU	Swiss Ordinance	China	Nestlé approved					
														MEK (Methyl-Ethyl-Keton)	EAC (Ethyl-Acetat)	Butyl-acetat	Propyl-acetat	Others				Water-based (AQ)	Gravure							Flexo	175.105	175.300
	●		●									13 – 17	250				High Boiling Solvents			●		●	●	●	●	●	●	●	●	Retortable, requires high PMT, high boiling solvents, opaque	ACTEseal TN-111-F	ACTEGA Rhenania
	●		●									9 – 13	250	●						●		●	●	●	●	●	●	●	●	Retortable, requires high PMT, high boiling solvents, opaque, BPA free version	ACTEseal HM-320-0470	ACTEGA Rhenania
	●						●			Itself		13 – 17	170	●						●		●	●	●	●	●	●	●	●	Retort resistant Heat Seal Coating, clear, glossy	ACTEseal HM-660-0376	ACTEGA Rhenania
		PET	●	●	●	●	●	TBT*		●		7 – 9	120		●		●			●		●	●	●	●	●	●	●	●	Good resistance to aggressive fillings, retortable, universal sealing, but only for PET-substrate	ACTEseal HSC-170-E1	ACTEGA Rhenania
		PET	●	●								6 – 7	100		●		●			●		●	●	●	●	●	●	●	●	Economic, standard performance, no skinning at high coat weight, only for Paper/PET substrate	ACTEseal HSC-164-1	ACTEGA Rhenania
	●									●		6 – 10	200	●						●		●	●	●	●	●	●	●	●	Spacer lacquer for yoghurt lids, opaque, mat	ACTEseal HM-026	ACTEGA Rhenania
		BoPP, oPP, PP	●							●			110					●		●	●			●	●	●	●	●	●	Heat Seal Coating for Laminates film/paper, alu/film, film/film	TerraWet Heat Seal Coating G 16/150	ACTEGA Terra

\*TBT = to be tested

\*\* ● Not directly listed, but in compliance

● Only non-alcoholic food

● Only non fatty food

# Laminating Adhesives

Substrate		Food Contact Regulation*		Product Description	Technical Information Adhesive			Technical Information Hardener		Mix Ratio	Formulation	Performance			Film weight*** [g/m²]	Nip Station [°C]	BPA-NI	Company
Foil	Film	FDA 175.105	EU 10/2011/ EC		Productname	Solids** [%]		Productname	Solids** [%]			medium	medium - high	high				
Alu	HDPE	●		Retort applications, good filling resistance, thermal and chemical resistance, especially for aluminum containing laminates, Hardener aliphatic (HDI based)	ACTEbond ASB-203	49		HT-038-S	100	100:5	Solvent-based			●	4,0 – 5,0	30 – 60	●	ACTEGA Rhenania
Alu	HDPE	●		Colored versions of corresponding clear adhesives	ACTEbond ASB-203-series ACTEbond ASB-905-series	colourspecific		HT-038-S	100	colourspecific	Solvent-based	colourspecific					●	ACTEGA Rhenania

\* For further detailed statements please contact our technical sales experts.

\*\* After DIN EN ISO 3251 usually measured by 30 min, 180°C

\*\*\* Dry, divergent weight possible



# Primer 1/2

Substrate		Technical Information											Food Contact Regulation ***					Product Description		Productname	Company	
Foil	Film	Solids [%]	Measuring Method*	Film Weight** [g/m²]	Drying Conditions		Formulation		Application Process		BPA-NI	PVC-NI	MF-NI	FDA		EU	Swiss Ordinance	China	Nestlé approved			
					Recommended PMT [°C]	Hot Air	Solvent-based (SB)	Water-based (AQ)	Gravure	Flexo				175.105	175.300							
●		37 – 41	1	1,0 – 1,4	>150		●		●		●	●		●	●			●	●	Primer for heat seal lacquer on aluminium, clear, glossy	ACTEcoat SL-819-N	ACTEGA Rhenania
●		35 – 39	1	0,3 – 0,9	>150		●		●		●	●		●	●			●	●	Suitable for printing lines pmt ~180 °C, heat pressure resistant, clear, glossy	ACTEcoat SL-819-V	ACTEGA Rhenania
●		35 – 39	1	0,3 – 0,9	100 – 120		●		●		●	●		●	●			●	●	Catalyst ZU-322 required, suitable for printing lines pmt ~100 °C, clear, glossy, only for full surface printing	ACTEcoat SL-819-DWA	ACTEGA Rhenania
●		34 – 38	1	1,3 – 1,7	120 – 150			●	●		●	●		●	●			●	●	Heat pressure resistant, imprintable with flexo-, gravure and UV-inks, clear, glossy	ACTEcoat SW-140-0371	ACTEGA Rhenania
●		35 – 39	1	0,8 – 1,2	120 – 150			●	●		●	●		●	●			●	●	Highly heat pressure resistant, imprintable with flexo-, gravure and UV-inks, clear, glossy	ACTEcoat SW-140-0490	ACTEGA Rhenania
	PE	32 – 36	1	0,8 – 1,2	>150			●	●			●		●	●			●	●	Heat pressure resistant, imprintable with flexo-, gravure and UV-inks, clear, glossy	ACTEcoat SW-001-0277	ACTEGA Rhenania
●		28 – 32	1	1,8 – 2,2	120 – 150		●		●		●		●	●				●	●	Primer for Heat Seal Lacquers on aluminum, retortable, highest resistance	ACTEcoat HM-630-0309	ACTEGA Rhenania
●	PET	34 – 36	1	0,8 – 1,2	80 – 120		●		●		●	●	●							Primer for Heat Seal Lacquers on aluminum & PET film	ACTEcoat PR-300-EE	ACTEGA Rhenania
●		37 – 41	1	2,2 – 2,8	>150		●		●		●									Heat pressure resistant, pasteurisable, clear, glossy	ACTEcoat SC-320-0438	ACTEGA Rhenania
●		36 – 38	1	1,5 – 2,5	>150		●		●			●	●	●	●			●	●	Retortable, imprintable with 2 component gravure & flexo-inks, for non-pretreated aluminum, deep-drawn, clear, glossy	ACTEcoat K-9007-30	ACTEGA Rhenania
●		32 – 36	1	2,0 – 3,0	>150		●		●			●	●	●	●			●	●	Retortable, highly heat pressure resistant, imprintable with 2 component gravure & flexo-inks, deep-drawn, gold, glossy	ACTEcoat SC-240-1354	ACTEGA Rhenania
●		32 – 36	1	2,0 – 3,0	>150		●		●			●	●	●	●			●	●	Retortable, highly heat pressure resistant, imprintable with 2 component gravure & flexo-inks, deep-drawn, gold, glossy	ACTEcoat SC-245-1463	ACTEGA Rhenania

\* Measuring methods:

- 1) After DIN EN ISO 3251 usually measured by 30 min, 180 °C
- 2) After Sartorius Moisture Analyzer

\*\* Dry, divergent weight possible

\*\*\* ● Not directly listed, but in compliance

● Only non-alcoholic food

# Primer 2/2

Substrate		Technical Information											Food Contact Regulation ***					Product Description		Productname	Company	
Foil	Film	Solids [%]	Measuring Method*	Film Weight** [g/m²]	Drying Conditions		Formulation		Application Process		BPA-NI	PVC-NI	MF-NI	FDA		EU	Swiss Ordinance	China	Nestlé approved			
					Recommended PMT [°C]	Hot Air	Solvent-based (SB)	Water-based (AQ)	Gravure	Flexo				175.105	175.300							
●		30 – 50	1	2,0 – 5,0	>150		●		●		●	●		●	●			●	●	Deep drawable, retortable, glossy, improved adhesion for critical aluminum-alloys, different colorshades available	ACTEcoat SC-320-series	ACTEGA Rhenania
●		32 – 36	1	1,5 – 1,9	>150			●	●			●		●	●		●	●	●	Retortable, highly heat pressure resistant, imprintable with 2 component gravure & flexo-inks, <5 % VOC, colorshades available, gold, glossy	ACTEcoat SW-001-1497	ACTEGA Rhenania
●		46 – 50	1	2,2 – 2,8	>150		●		●		●	●		●	●		●	●	●	Non-retortable, substrate pretreatment necessary, deep-drawable, clear, glossy	ACTEcoat CM-002-AC	ACTEGA Rhenania
●		45 – 49	1	6,0 – 10,0	>150		●		●		●	●		●	●		●	●	●	Non-retortable, for non preteated aluminum, deep-drawable, white, glossy	ACTEcoat EB-2657-A	ACTEGA Rhenania
●		58 – 62	1	6,0 – 10,0	>150		●		●		●	●		●	●		●	●	●	Non-retortable, for non preteated aluminum, high solids, deep-drawable, white, glossy, different colorshades available	ACTEcoat CM-251-W133	ACTEGA Rhenania
●		30 – 50	1	colorspecific	>150		●		●		●	●	colorspecific	●	●		●	●	●	Deep-drawable, glossy, improved adhesion for critical aluminum-alloys, different colorshades available	ACTEcoat CM-320 series	ACTEGA Rhenania
●		33 – 35	1	colorspecific	>150		●		●			●	colorspecific	●	●		●	●	●	Sealable to mylar-film, deep-drawable, glossy, improved adhesion for critical aluminum-alloys, different colorshades available	ACTEcoat CM-291 series	ACTEGA Rhenania
●	BoPP, oPP, PP	25 – 30	2	1,0 – 2,0		●		●	●											Matt pre print primer	TerraWet PrimerG 16/109	ACTEGA Terra
●	BoPP, oPP, PP	25 – 30	2	0,8 – 2,0		●		●	●											Transparent pre print primer for critical inks	TerraWet Primer G 16/140	ACTEGA Terra
●		40 – 45	2	1,0 – 2,0		●		●	●							●		●		Primer for aluminum foil to be printed with NC inks	TerraWet Primer G 16/215	ACTEGA Terra
●	BoPP, oPP, PP	25 – 30	2	0,8 – 2,0		●		●	●							●				Pre print primer	TerraWet Primer G 16/305	ACTEGA Terra

\* Measuring methods:

- 1) After DIN EN ISO 3251 usually measured by 30 min, 180°C
- 2) After Sartorius Moisture Analyzer

\*\* Dry, divergent weight possible

\*\*\* ● Not directly listed, but in compliance

● Only non-alcoholic food

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