



Bonding Together

Where Your **Adhesives & Coatings** Requirements Are Always Met

ADHESIVES & COATINGS FOR FLEXIBLE PACKAGING INDUSTRY

LAMINATION ADHESIVES

- Acrylic Water Based
- PU Solvent Free - Mono & Bi-Component
- PU Solvent Based

PRESSURE SENSITIVE ADHESIVES

- Holograms
- BOPP Tapes
- Label Stock

COATINGS

- Heat Seal - Water Based (Al-Foil to Al-Foil)
- UV Varnish
- Solvent Based Coatings
- Release & Primer Coatings
- Cold Seal Coatings

HOTMELT ADHESIVES

- Side Sealing of WPP & Raffia Bags
- WAD Application
- Toffee Twist Wrapping
- Soap Wrapper Coating



With more than 29 years of experience in Global Supplies, **Chemline** is one of the unique Indian Companies manufacturing wide range of Adhesives & Coatings for Flexible Packaging Industry. It has proven its leadership in number of segments in Indian and Overseas Market, which includes PU Lamination Adhesives (Solvent Less & Solvent Based), Water based Adhesives, Water Based Heat Seal Coating, UV Coatings, Top Coats, Hot-Melt for Side Sealing of WPP Bags, Waxes for WAD Application among others.

CHEMICRYL[®]

ACRYLIC WATER BASED LAMINATION ADHESIVES

- Provides excellent bonding with Al-Foil, PET, MET PET, MET BOPP, PVC, BOPP, CPP with Paper.
- Used for making Liners, Gutkha/Pan Masala Pouches, Non-tearable paper etc.

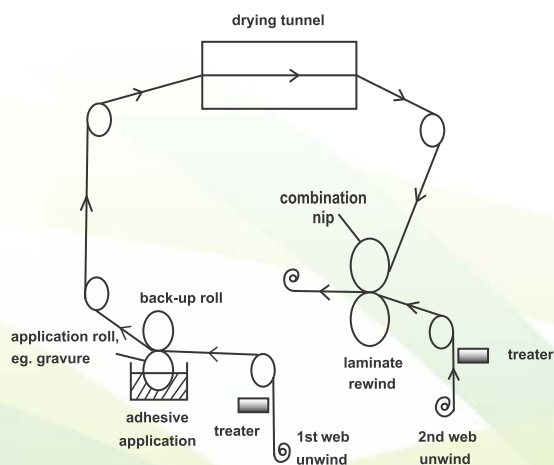


Typical Lamination Machine

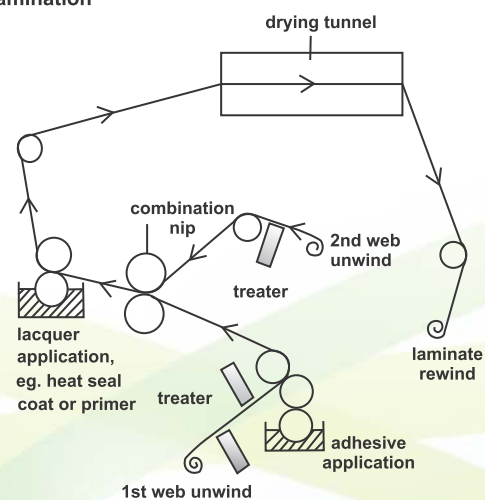


Product	Grade	Viscosity	Solids %	pH	Application	Specific Advantages
ADHESIVES FOR DRY & WET GRAVURE COATING MACHINES	DL 5202 (30X)	27±2 secs	51±1.0	7.5±1.0	Ready to use Acrylic Based Products for Lamination of Films like PET, PVC, CPP, BOPP or Aluminium Foil to Paper at High Speed of > 200 mtr/min. 2% to be Mixed with Adhesive.	<ul style="list-style-type: none"> - Results into Better Heat Resistance of Laminates. - Faster binding with paper - Performs better at speeds of >3000 pouches/min. - For Transfer Metallization from PET to Paper. - Application System can be cleaned by use of water. - Improves Heat Resistance of Laminates.
	DL 4509 N	17±2 secs	43±2.0	7.0±0.5		
	DL 5202 (30X)1	17±2 secs	43±2.0	8.0±0.5		
	HD 300 (Hardener)	300±100 cps	70±1.0	9.0±0.5		

Dry Lamination



Wet Lamination

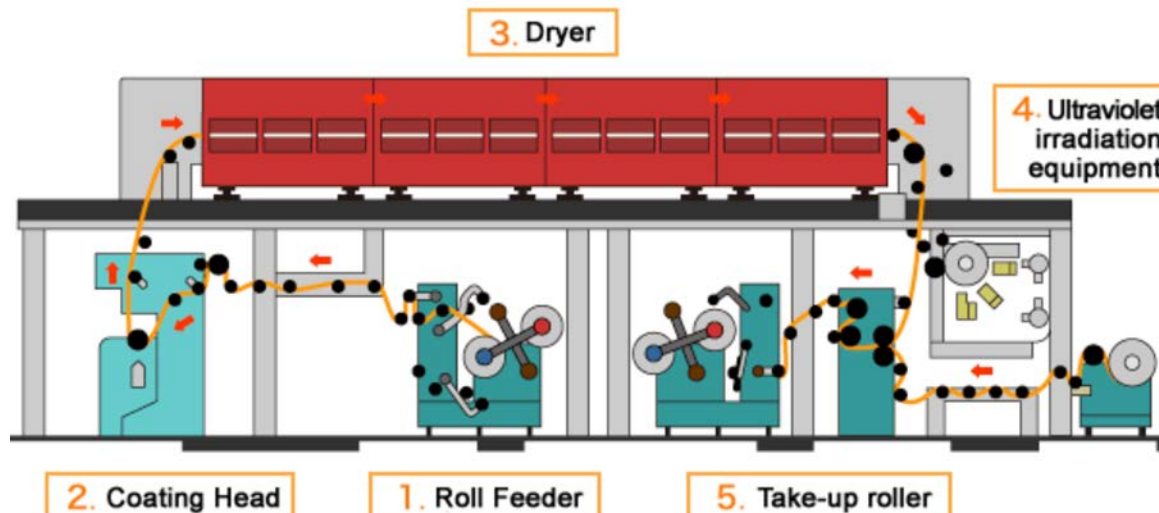


ULTRAGLOSS® & CHEMIGLOSS®

COATINGS

- Benzophenone free UV Coating.
- Excellent Gloss and Scuff Resistance.
- Low Migration Property.
- Fast curing and Good Heat Resistivity.
- No Foaming at high speed and provides Colorless coating without any yellow tinge on coated paper.
- UV Coating is preferable for Offline UV Coater, while solvent based OPV Coating can be done online while printing.

UV Coating Process



UV/OVER PRINT COATINGS FOR PAPER

Product	Grade	Viscosity, at 25°C	Scuff @ 2 lbs/sq. (Revolutions)	Gloss	Specific Advantages
UV COATING FOR OFFLINE APPLICATION	UVF 400 L 303	40 ± 10 sec.	Approx. 500	92-95%	- Good HR properties. - Odorless UV for all types of papers with good gloss. - No Residual Tack. - No Foaming at High Speeds of 150 mtr/min. - Good Anchoring on all types of printed paper.
	UVF 400 L 40	40 ± 10 sec.	Approx. 500	90-92%	
SOLVENT BASED OVER PRINT COATING	OPV S 25 (N)	35 ± 5 sec.	-	45-55%	

AQUASEAL® & CHEMISEAL®

AQUASEAL® - WATER BASED HEAT SEAL COATING

- Environment Friendly as it is Water Based
- For Al-Foil to Al-Foil Sealing.
- Can be applied by Normal Gravure Coater.
- Goods Sealability between wide range of temperatures



Product	Grade	Viscosity, at 25°C	Solids %	Application	Specific Advantages
HEAT SEAL LACQUER FOR AL FOIL	CHSL W (40)	70±2 secs	42±2	Used for Al Foil to Al Foil Sealing	- Suited for High Speed Sealing of Pouches. - Suited for making pharma blisters

CHEMISEAL®

- Hot Stamping Foil Coating gives Good Bonding with PVC Cards, Coated Paper and other Substrates.

Product	Grade	Viscosity, at 25°C	Solids %	Application	Specific Advantages
HOT FOIL STAMPING COATING	HSF 25	20±5 secs	20±1	Suitable for Hot Foil Stamping Coating.	Provide Complete Transfer in Holograms & Transparent Appearance after Drying.

CHEMICOAT® & AQUACOAT®

CHEMICOAT® - RELEASE LACQUER / AQUACOAT® - PRIMER COATING

- Good for Release Coating of PET Films for Transfer Metalization, Holography & Printing to Paper.
- Primer Coating for PET and Paper for Permanent Metallization.
- Primer Coating also enables MET-PET Films to Print UV Ink over its surface.

Product	Grade	Viscosity, secs at 25 °C	Solids %	pH	Application	Specific Advantages
RELEASE LACQUER	RC 30	45±5	25±2.0	-	Coating on PET Film for Transfer Metalization & Transfer Printing.	1. Good Releasing Property. 2. Compatible for UV ink printing after transfer.
PRIMER FOR PET & PAPER	MPP 4030	30±5	41±2.0	8.0±0.5	Metallization Primer for Paper & PET Film	1. Base coat for PET/Paper for Permanent Metallization 2. Primer for Printing UV Ink on MET PET Films



QUICKLOCK®

HOTMELT ADHESIVES

Chemline manufactures wide range of Hotmelt Adhesive under the Brand Name of **QUICKLOCK®** in form of Granules, Bricks and Pillows for different applications. The products have been designed to be Odour Free with Good Thermal Stability and minimal charring characteristics. These are special grades suitable for extreme Climatic Conditions.



• Side Sealing of WPP/Raffia Bags



Product	Grade	Peel Strength	Viscosity cps, at 150°C	Gluepot Temp. (°C)	Softening (°C)	Application	Specific Advantages
HOTMELT ADHESIVE FOR SIDE SEALING OF WPP BAGS	CH 9028 SSH(9)	Machine Direction: <u>15-20 N/cm</u> Cross Direction: <u>20-24 N/cm.</u>	35,000±5000	170-190	108±3	For Side Sealing of Woven Polypropylene, HDPE Bags through Nozzle Application.	- Strong bonding between PP to PP. - Passes minimum of 10 drops (25 Kg. sand bags at 6 - 8 ft. height)
	CH 9028 SSH(12)		17,000±3000	170-190	135±5		- Quick Bond Formation giving Higher Production Speeds. - Good Heat Resistivity. - Better Mileage.

• WAD Application



Product	Grade	Viscosity at 150°C	Gluepot Temp. (°C)	Softening Temp. (°C)	Application	Specific Advantages
LAMINATION WAX FOR INDUCTION SEALING FOR WAD	CH 800 W	100±20 cps	120-150	103±5	<ul style="list-style-type: none"> - For Lamination of Al Foil with Paper/ Board for WAD making. - Can be used separately or in combination as per desired results. 	<ul style="list-style-type: none"> - Formulated as per FDA Regulations. - Suitable for Extreme Hot Weather Conditions.
	CH 850 LW	40±10 cps	120-130	75±5		<ul style="list-style-type: none"> - Easy absorption while induction sealing process & provide clear de-lamination without any spots.
	CH 900 W	80±30 cps	130-150	103±3		
	CH 135 W(IS)	1200±500 cps	130-140	75±5	<ul style="list-style-type: none"> - For Induction Sealing of Glass Containers 	<ul style="list-style-type: none"> - Formulated as per FDA Regulations - No Residual Surface Tack.
	CH 150 W(IS)	5000±1000 cps	140-160	80±5		<ul style="list-style-type: none"> - Can be used for Hot Foil Stamping

• Toffee Wrapping & Butter Packaging



Product	Grade	Viscosity at 150°C	Gluepot Temp. (°C)	Softening Temp. (°C)	Application	Specific Advantages
WAX COATING FOR PAPER/ TOFFEE TWIST WRAPPER	PCW 104	1200±300 cps	140-160	105±3	In Paper Coating for Food Packaging & Toffee Twist Wrapper	<ul style="list-style-type: none"> - Moisture Impermeable Characteristics - Formulated as per FDA Regulations.
	PCW 85	1200±300 cps	140-160	82±2		
LAMINATION WAX (AL-FOIL / GLASSINE)	CH 850 LY	40±10 cps at 100 °C	120-130	75±5	For Butter Packaging	<ul style="list-style-type: none"> - Oil & Water Resistant - Formulated as per FDA Regulations.
	CH 850 LW	40±10 cps at 100 °C	120-130	75±5		

• Soap Wrappers



Product	Grade	Viscosity at 150°C	Gluepot Temp. (°C)	Softening Temp. (°C)	Application	Specific Advantages
HOTMELT COATINGS	SWC 25 LH (W)	1500±500 cps	140-160	103±3	For Inner Coating & Heat Sealing of Soap & Chocolate Wrappers.	- Seals at Low GSM at High Speeds.
	SWC 25 LH	1500±500 cps	140-160	80±5		- Stable at Extreme Hot or Cold Environment.
	SWC 25 FG	1500±300 cps	140-160	80±5	Suitable for Chewing-gum Wrapper	- Formulated as per FDA Regulations.

CHEMISEAL® & AQUASEAL®

AQUASEAL - COLD SEAL COATING

- Most suitable for Chocolate Wrapping.
- Completely suitable for Direct Food Contact Packaging.
- Gives instant Sealing on Coated to Coated Surface without any Heat Application.

Product	Grade	Viscosity, at 25°C	Solids %	pH	Application	Specific Advantages
COLD SEAL COATING FOR CHOCOLATE WRAPPERS	CSC 4311	1500±200 cps	39±1	8.5±1	Coating on Inner Surface of the Plain/Metalized PET, BOPP, Paper or Board.	- Seals with Pressure Application only. - Instant Sealing on Coated to Coated Surface. - Can be used for Board to Board bonding in Blister Packaging. - Formulated as per FDA Regulations.



CHEMIBIND®

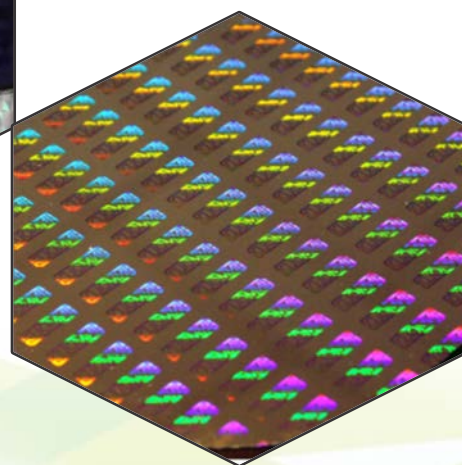
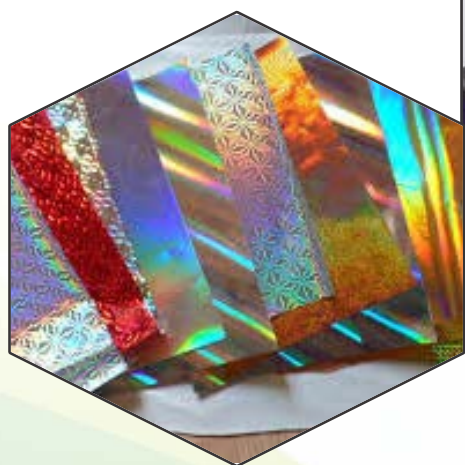
ACRYLIC CO-POLYMER RESIN POWDER

Product	Grade	Bulk Density (secs)	Mixing Ratio	Viscosity (25% Solids)	Gloss	Application
ACRYLIC CO-POLYMER RESIN POWDER	CR 40 TC	0.45±0.05	25 PARTS RESIN WITH 75 PARTS EA	22±5 secs	45-65%	Topcoat for all types of Printed Paper for Gravure Coating Machines.
	CR 40 IB	0.45±0.05	2-3% IN VINYL INKS MANUFACTURING	---	---	Used as Ink Binder in Gravure Inks and can replace Degalan P24 which is a binder.
	CR 40 HS	0.45±0.05	35 PARTS RESIN WITH 65 PARTS EA	100±10 secs	---	As Heat Seal Coating of Al Foil to Al Foil Sealing.
	CR 40 (4)	0.45±0.05	25 PARTS RESIN WITH 75 PARTS EA	45±5 secs	---	As Release Lacquer.

HOTMELT & WATER BASED PRESSURE SENSITIVE ADHESIVES

Chemline manufactures wide range of Pressure Sensitive Adhesives suitable for application in BOPP Packaging Tapes, Holographic Labels, Stickers, Label stocks, Protective Films, Envelope Flaps and other Allied uses.

Product	Grade	Viscosity, at 25 °C	pH	Solids%	Application	Specific Advantages
HOTMELT PRESSURE SENSITIVE ADHESIVES	CH 9028 L2F	20,000±5000 cps	-	-	Suitable for Label Stocks, Holograms.	Quick Bond formation Minimal Odor
	CH 9028 L3F	8,000±2000 cps	-	-		
WATER BASED PRESSURE SENSITIVE ADHESIVES	PST 52	16±2 secs	7.0±0.5	52±1	Suitable for Self Adhesive BOPP Tape & Holographic Labels, Masking Tape.	Good Tack & Non Transferable
	PST 55 HT (9)	19±2 secs	7.0±0.5	54±1		
	PS 5520	1300±200 cps	6.0±1.0	52±1	Suitable for Stickers, Label Stock & Envelop Flaps	
	PS 5570	7500±500 cps	6.0±1.0	52±1		
SOLVENT BASED PSA	PS 6520 (S)	4500±500 cps	-	50±2	Suitable for Medical / Foam / Cloth / HDPE Tapes, Label Stocks.	Non-transferable, clear adhesive coating & clean removability.



* Some of Pictures used here are for representation only

CHEMIFLEX®

LAMINATION ADHESIVES



Chemline manufactures full range of Solvent free & Solvent Based Polyurethane Adhesives under the brand name **CHEMIFLEX®**, which are successfully running on machines like Nordmeccanica, Expert, Pelican, Futura, Kohli, Narendra etc.

SOLVENT FREE PU LAMINATION ADHESIVE

- **Bi-Component Adhesive**



Product	Grade	Viscosity, cps	Solids %	Application	Specific Advantages
SOLVENT FREE POLYURETHANE LAMINATION ADHESIVES	CPU 100 BC (NCO)	3000±1000, 40 °C	100%	<ul style="list-style-type: none">- Solvent Free Two Component PU Adhesive System.- Used in the Ratio of 100:60 Parts on High Speed Machines like Nordmeccanica.- For making laminates of films like Al Foil, PET, BOPP, LDPE, CPP, MET BOPP, MET PET, MET CPP etc.	<ul style="list-style-type: none">- Best suited for Food Packaging.- Gives Good Bond Strength with Speckling Free Result.- Good Heat Sealing & Resistance Properties.- Formulated as per FDA Regulations.- Suitable for lamination of light color substrates with MET-PET.
	CPU 100 BC (OH)	1000±200, 25 °C	100%		

• **Mono-Component Adhesive**



Mono-Component Applicator



Bi-Component Applicator

Product	Grade	Viscosity, cps	Solids %	Application	Specific Advantages
MONO-COMPONENT POLYURETHANE LAMINATION ADHESIVES	CPU 100 M (12)	1200±400, 80 °C	100%	- Solvent Free Single Component PU Adhesive System. - Lamination of Paper To Al Foil / Various Films like PET, MET PET, CPP etc.	- Cures with Presence of Moisture within 24-40 hrs. - Suitable for Lamination at High Speeds

SOLVENT BASED PU LAMINATION ADHESIVE



POLYURETHANE SOLVENT BASED LAMINATION ADHESIVES

Product	Grade	Application	Viscosity @ 25 °C	Solids %	Specific Advantages
SOLVENT BASE POLYURETHANE LAMINATION ADHESIVE	CPU-60(NCO)	Retort Grade	600 ± 200 cps	60 ± 2	- Suitable for hot filling applications like Ketchups & Aggressive Products like shampoo, spices etc.
	CPU-50(OH)	Mixing Ratio - 100:4	15 ± 2 sec	50 ± 1	
	CPU-66	Medium Performance	6000 ± 1000 cps	66 ± 1	- Suitable for Aggressive Products like shampoo, spices etc. - Used in General purpose application at low coating weights with higher mileage.
	HD-50	Mixing Ratio - 100:15	16 ± 2 sec	50 ± 1	
	CPU-80	General to Medium Performance	9000 ± 1000 cps	80 ± 2	- Best Suited for food packaging. - Formulated As per FDA Regulations
	HD-75	Mixing Ratio - 100:15 for HDPE/LDPE films, 100:12 for Metalize films	1200 ± 300 cps	75 ± 2	



GLOBAL PRESENCE

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adhesives & coatings
Since 1990