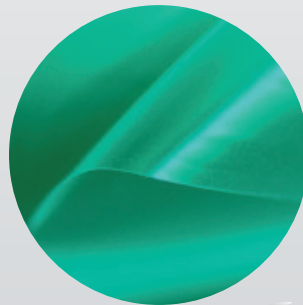
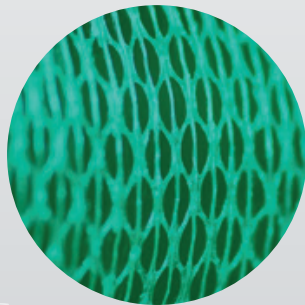
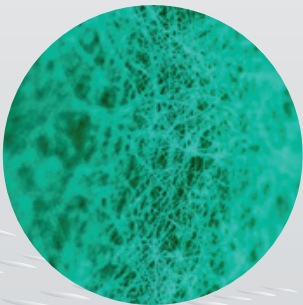




Adhesive solutions in roll and powder form



Thermoplast

Manufacturer of hotmelt thermoadhesive webs, nets, films and powder

Adhesive solutions in roll and powder form

Protechnic offers advanced adhesive solutions to meet your challenging lamination requirements. Whether you need improved performance, added functionality, streamlined production or reduced cost, Protechnic's range of hot-melt webs, films, nets and powder will help you achieve your goal.

Technical

Our wide range of polymers, structures, dimensions, performance characteristics and technical features enables us to offer the optimal adhesive solution meeting all of your technical requirement.

Aesthetic

The optimal adhesive solution is one that will preserve the look, feel and flexibility of your substrates.

Ecological

Our solvent-free adhesives are clean and efficient to use :
1 meter of adhesive = 1 meter of laminate.
No wasteful set-up process is required and most of our products emit no VOC's.

Economical

Our high performance polymers allow you to lower the adhesive weight and therefore reduce cost. Development cycles are shortened and small scale trials are easily duplicated in production. The simplicity of the process limits waste and production errors.

Protechnic provides you with a complete solution

- Assistance in defining the specifications of your project
- Expert guidance in identifying the right dry adhesive solution
- Help in determining the optimal processing conditions

Protechnic products are used worldwide and supported by our international sales network and support facilities.



Recommended for open, permeable or flexible applications

- 7 patterns available with varying degrees of openness
- More bond strength than a web or film of equal weight due to adhesive thickness
- Regular and consistent distribution of adhesive across the surface of your substrates
- Increased flexibility and breathability of the laminate compared to webs and films



Reference	Base	Backing ¹	Min. activation temperature °C	Viscous type based on MVR	Weight from - to gr/m ²	Width maxi mm	Main markets	Main features
COPOLYAMIDE								
111	Net (1)	D/P	100	very low	30	1500		High-runner, can be activated by steam
113	Net (3)	P	100	very low	20	1500		Fluid, open
115	Net (5)	D/P	100	very low	22	1500		Chemical resistant, thin
116	Net (6)	S	100	very low	20 - 45	1600		Fluid, flexible, versatile
1G6	Net (6)	S	110	low to medium	23 - 50	1600		Chemical resistance, thin
1G7	Dots (7)	P	110	low to medium	30	1500		Soft, versatile, wash resistant
1A6	Net (6)	S	130	medium	20 - 35	1600		Discontinuous, can be activated by steam
COPOLYESTER								
926	Net (6)	S	115	low to medium	25 - 40	1600		Good bonding, cost effective, rigid
ZK6	Net (6)	S	120	medium	24 - 40	1600		Versatile and competitive net
976	Net (6)	S	125	low to medium	40	1600		Good bonding plasticized PVC, PU foam and most textiles. Good hydrolysis resistance
POLYOLEFINE								
311	Net (1)	D/P	80	very low	35	1500		Good affinity with active carbon
POLYURETHANE								
6C2	Net (2)	P	80	medium to high	35	1500		Flexible, low melt, quick-melt, chemical resistant
UT1	Net (1)	D/P	105	very low to low	38	1500		Soft, elastic, UV-stable
UT7	Dots (7)	P	105	very low to low	30	1500		Very soft, elastic, UV resistant

¹ E = Slit film
 S = produced without backing
 D = detached from carrier
 P = with paper backing
 F = with PE film backing

² VOC-free = VOC < 100PPM
 low VOC = VOC from 101 to 200 PPM
 medium VOC = VOC > 200 PPM

³ CoPA = copolyamide
 CoPES = copolyester
 TPE = thermoplastic polyester elastomer
 TPU = thermoplastic polyurethane
 PO = polyolefin

Garment Lingerie

Shoes Leather

Upholstery Automobile

Domestic Composite

Building Filtration

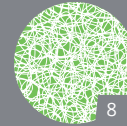
Industrial Medical

Webs



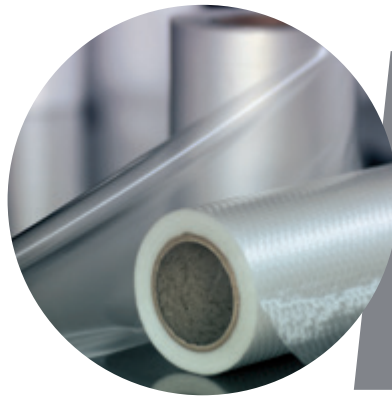
Best compromise of weight, softness and performance.

- Available in weights as light as 4 grams per square meter
- Used in many industrial applications
- Rough surface enables good bonding and thermoforming
- Easy to unroll and process, no air entrapment during lamination
- Maintains the softness and flexibility of light substrates
- Available in bi-layer (bi-component) form
- All webs can be directly coated on your material, up to 1950 mm



Reference	Base	Backing ¹	Min. activation temperature °C	Viscous type based on MVR	Weight from - to gr/m ²	Maxi width mm	Main markets	Main features	VOC ²
COPOLYAMIDE									
B18	Web	S/P	90	very low	8 - 60	2200		Fluid, can be activated by steam	
158	Web	S	90	low to medium	12 - 30	2200		Versatile	free
178	Web	S	95	medium	8 - 60	2200		Chemical resistant, low melt, efficient	free
A78	Web	S	100	medium	20	2200		Flame retardant properties	
BK8	Web	S/P	100	low to medium	8 - 80	2200		Adapted to textile lamination, good dry cleaning resistance	
198	Web	S	110	medium to high	12 - 80	2200		Chemical resistant, for difficult substrates	low
BW8	Web	S/P	110	low	6 - 50	2200		Versatile, wash resistant	
1G8	Web	S/P	110	low to medium	4 - 90	2200		Wash resistant, dry cleanable, versatile	
AN8	Web	S	110	low to medium	10 - 50	2200		Versatile	med
1Z8	Web	S	125	low	12 - 50	2200		Non-polar substrates, soft	free
1A8	Web	S	130	low to medium	12 - 50	2200		Heat resistant	
BR8	Web	D	155	very high	4 - 50	2200		Low weight web, high melt, chemical resistant	
BC8	Web	S	165	N.A.	4 - 50	2200		High melt, high dry cleaning resistance available in low weight	low
COPOLYESTER									
9D8	Web	S/P/F	85	low to medium	8 - 60	2200		Low melt, plasticizer resistant, for delicate substrates	free
998	Web	S/P	105	medium	6 - 70	2200		Can be activated by HF, good wash resistance	free
9G8	Web	S/P	105	medium to high	6 - 70	2200		Equivalent to 998 but tin free	
ZK8	Web	S	115	medium	6 - 60	2200		Versatile and competitive web	
9B8	Web	D	115	low to medium	16 - 80	1900		Soft, wash resistant	
978	Web	S	120	low to medium	12 - 75	2200		Versatile, tin free	low
ZM8	Web	S	120	low	12 - 75	2200		Flame retardant properties, tin free	low
YF8	Web	S	140	medium	16 - 50	2200		High melt, heat resistant, tin free	free
YR8	Web	S	140	medium to high	20 - 25	2200		High viscosity, high melt, tin free	free
ZP8	Web	D	145	very high	16 - 50	2200		High melt, tin free	
POLYOLEFINE									
CZ8	Web	S	75	very low to low	16 - 100	2200		Elastic, soft, low melt	free
3B8	Web	S	100	very low to low	14 - 50	2200		Good for wadding	free
POLYURETHANE									
6C8	Web	D/P/F	70	medium to high	8 - 140	1900		Low melt, for difficult substrates & PVC	med
UT8	Web	D/P/F	105	very low to low	12 - 70	1900		Elastic, soft, chemical resistant, good for knitwear	med

Films



Recommended for applications requiring economical, full surface bonding

- Adhesive distributed evenly across the surface of your substrates
- Wide range of weights and widths, up to 3000 mm
- Available in bilayer (bi-component) form
- Most films can be slit (perforated), up to 2500 mm



Reference	Base	Backing ¹	Min. activation temperature °C	Viscous type based on MVR	Weight from - to gr/m ²	Maxi width mm	Main markets	Main features	VOC ²
COPOLYAMIDE									
179	Film	D/F	100	medium	22 - 80	2200	  	High-tech, good bonding	
199	Film	F/D/P	115	medium to high	22 - 220	2200	  	Low melt, chemical resistant	
COPOLYESTER									
YD9	Film	D/F	85	medium	30 - 60	2500	  	Low melt COPES film	low
9T9	Film	D/F	100	high	30 - 60	2500	  	Low melting point, for CoPES textiles and non-woven	
ZQ9	Film	D/F	100	high	25	2500	  	Copolyether ester film, flexible, adapted for textile and foam applications	
979	Film	D/F/P	110	high	20 - 60	2400	  	Versatile	
YV9	Film	D/F	140	high	20 - 60	2400	  	High melt, heat resistant	
92M	Membrane TPE	D/F	195 ^C	very high	12 - 100	2200	  	Impact resistant, ester membrane	
94M	Membrane TPE	D/F	195 ^C	very high	12 - 100	2200	  	Impact resistant, ester membrane	
POLYOLEFINE									
DD9	Film	S	65	high	23 - 52	2500	  	Very low melting point and fast flowing.	
3X9	Film/Slit film	S/E	75	high	21 - 95	2500	  	Versatile, low melt, high-runner	med
5X9	Film/Slit film	S/E	80	high	23 - 95	2500	  	Competitive low melt EVA based	med
3W9	Film	S	80	high to very high	19 - 120	2500	  	Soft	
3R9	Film	S	90	high	23 - 140	2500		EAA based product good for non-woven, foam, aluminum	
3L9	Film/Slit film	S/E	95	medium to high	19 - 94	1800		Very fluid, anti-fraying, good for jean's belt loop and felt	
3P9	Film/Slit film	S/E	100	very high	23 - 140	2200		Versatile	
4B9	Film	S	125	very high	23 - 50	2500		High melt	
CK9	Film/Slit film	S/E	130	high to very high	26 - 32	2500		High melt	
4A9	Film/Slit film	S/E	130	very high	23 - 55	2500		High melt PP for PP substrates	
POLYURETHANE									
6B9	Film	F	75	high	28 - 120	2500		Low activation temperature	
6A9	Film	F/P	95	high	18 - 150	2200		Stretch, high wash resistant	
6MB	barrier or high melt TPU	D/F	145 ^A	very high	24 - 180	1700		Good resistance to hydrolysis, ester	
6WB	barrier or high melt TPU	F	162 ^A	very high	18 - 140	2500		High melt, ether	

Multifunctional products



Recommended for applications requiring adhesive plus added functionality

- Combine the performance and functionalities of different polymers and/or structures
- Up to five layers may be coextruded into a single film to build functions such as adhesive, air/liquid barrier, opacity, light diffusion, fire retardant, etc.
- Adhesive layers may be the same or different polymers
- Many polymer combinations are possible
- Microporous membrane may be combined with an adhesive web



Reference	Base ³	Backing ¹	Activation temperature mini - maxi °C	Viscous type based on MVR	Weight from - to gr/m ²	Maxi width mm	Main markets	Main features	VOC ²
5XA	2 Layer Film PO	S	75 - 110 ^A	high	23 - 93	2500		Fast activation, low melt	
5XD	3 Layer Film PO	S	75 - 110 ^A	high	23 - 95	2500		Fast activation, low melt	med
5AD	3 Layer Film PO	S	100 - 110 ^A	high to very high	23 - 189	2500		Barrier effect, competitive, viscous	
5AA	2 Layer film PO	S	100 - 110 ^A	high to very high	23 - 188	2500		Competitive, viscous	
2XC	2 Layer film PA/PO	D/F	90 ^B	medium to high	20 - 60	2200		Good bonding, high-tech, versatile	
2PC	2 Layer film CoPA/PO	D/F	115 ^B	high	30	2500		Adapted to bond two different substrates	
4PC	2 Layer film COPA/PO	D/F	130 ^B	very high	24 - 95	1800		Excellent to bond PVC or PU foam on natural or PP fibers	
7ED	3 Layer film TPU	D/F	100 - 150 ^A	very high	24 - 108	2200		Soft, versatile	
7GA	2 Layer film TPU	D/F	100 - 150 ^A	very high	30 - 120	2200		Soft, versatile	
81W	bi-polymer web	D/F	95 ^B	low to medium	20 - 30	1900		Low emission product, adapted to leather bonding	
92M/9B8	Membrane / web TPE	D/F	115 - 195 ^C	N.A.	15 - 50	1900		Impact resistant, Copes web on ester membrane	

- ^A Product with barrier, check TDS (Technical Data Sheet).
- ^B Bi-layer minimum activation temperature high melt product, check TDS.
- ^C Product with membrane, check TDS.

Customized solutions

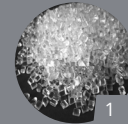
This product listing is intended to show our range of capabilities, not all product possibilities. Our real strength is providing custom engineered solutions which meet the specific needs of our customers. By exploring raw material options and blends, co-extrusions and material combinations, we can develop a solution tailored to your application. Whether it's improved performance, added functionality, streamlined production or reduced cost, Protechnic will help you achieve your goal.

Powder



Recommended for applications Economical & Flexible Solution

- Thermoplastic adhesive from PE, EVA, COPA, COPES & TPU available
- Customised particle size available , customised solution for each application



Reference	Melting Range DSC °C	MFI (160°C/2.16kg) (190°C/2.16kg)	Laundry Resistance °C	Dry Cleaning	Particle Size	Main markets	Main features
COPOLYAMIDE							
PA A1	105-132	42	60	Good	0-80, 80-200,200-500		Good Adhesion & drycleaning resistance , Cost Effective
PA A2	100-128	27	90	Excellent	0-80, 80-200,200-500		Excellent bonding & laundry resistance, Suitable for Enzyme Wash & Garment Dyeing
PA A5	75-80	45	40	Good	200-400		Low melting suitable for oily leather application
COPOLYESTER							
PES A1	105-120	28	40	Good	0-80, 80-200,200-500		Good bonding, cost effective
PES A6	110-125	25	60	Good	0-80, 80-200,200-500		Good bonding, wash resistance & plastisizer resistance
PES A14	124-130	14	75	Good	0-80, 80-200,200-500		Good Bonding, excellent washing & Plasticizer resistance
POLYOLEFINE							
LLDPE A1	115-119	50	95	Good	0-200,0-500		Automotive application for lamination & powder dot application
LDPE A1	104-115	70	95	Good	0-300,0-500		Special Grade LDPE low viscosity
LDPE A2	108-110	30	95	Good	0-300,0-500		Regular LDPE for lamination
HDPE A1	127-135	20	95	Good	0-200,0-500		high melting point provides a good heat resistance, used for top fuse and shirt collar
EVA A1	60-80	150	40	-	200-400		For leather & shoe interlining , foam lamination with 28 % VA content
EVA A2	60-80	20	40	-	200-400		For leather & shoe interlining , foam lamination with 28 % VA content
EVA A6	60-80	20	40	-	200-400		For leather & shoe interlining , foam lamination with 33 % VA content
POLYURETHANE							
TPU A1	95-115	15	60	Good	0-80.80-200.120-200.200-500		Very Soft, Outlasts Garment, excellent for heat transfer
TPU A2	95-105	18	60	Good	0-80.80-200.120-250.200-500		Soft, elastic, Low melting
TPU A3	108-118	25	60	Good	0-80.80-200.120-250.200-500		Soft, elastic, High wash

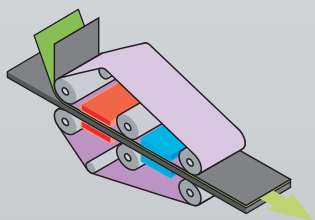
Garment	Lingerie
Shoes	Leather
Upholstery	Automotive
Domestic	Composite
Building	Filtration
Industrial	Medical

Overview of technologies

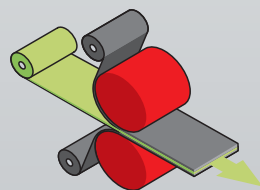
Technology	Product	Maxi. width trimmed - mm	Raw materials •	melt °c mini - maxi	Viscosity (MVR)	Weight gr/m ²
Web	web with or without paper or film carrier	1950	CoPA CoPES TPU	80 - 190	from very fluid to mid viscous	from 4 to 80
	web without backing	2250	CoPA CoPES TPU PO	80 - 190	from fluid to viscous	from 4 to 60
Net	net on paper carrier	1500	CoPA CoPES EVA TPU	45 - 150	fluid	from 13 to 50
	net without carrier	1600	CoPA CoPES	100 - 160	fluid to mid viscous	from 23 to 60
Blown film	adhesive film up to 5 layers	2000	CoPA CoPES PO EVA TPU	50 - 180	from viscous to very viscous	from 20 to 200
	wide width from open bubble	3200	TPU CoPA PO	50 - 180	from viscous to very viscous	from 20 to 150
	barrier film / membrane film	2500	TPE TPU PO	150 - 220	-	from 15 to 100
	slit film	2500	PO EVA CoPES	70 - 150	from viscous to very viscous	from 20 to 100
	on paper backing	1800	CoPA CoPES TPU	50 - 150	from mid fluid to mid viscous	from 15 to 150

• CoPA = copolyamide / CoPES = copolyester / TPE = thermoplastic polyester elastomer / TPU = thermoplastic polyurethane / PO = polyolefin

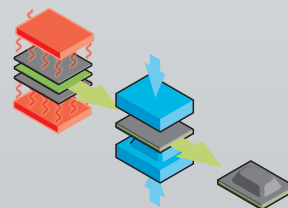
Lamination or transfer coating with Protechnic products is an environmentally friendly process that can be achieved on various types of equipment :



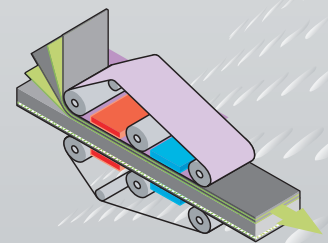
Flatbed Press
1 bonding layer



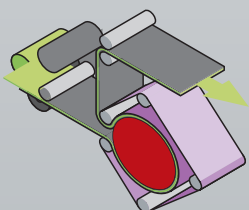
Regular Calender



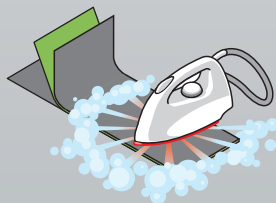
Thermoforming



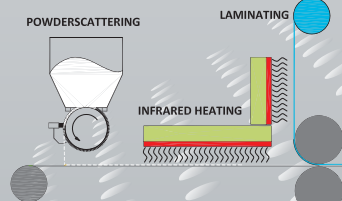
Flatbed Press
2 bonding layers



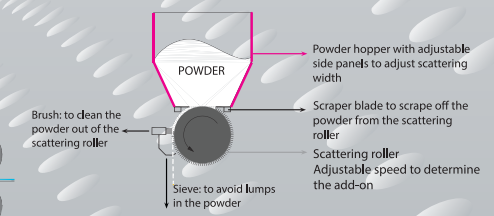
Belt Calender



Ironing and steaming



IR-line + Calender



Powder scattering machine

A unique range to fit all of your bonding needs

Other applications for high performance thermoadhesive :



Automotive

Acoustics

Composites

Aircraft
Public transport
Yachting

Domestic
textiles

Technical
textiles

Garment
& accessories

Leather
goods

Success is personal !

Thermobonding customized to meet your needs

Protechnic Thermoplast is a global leader in the production of thermoadhesive roll goods. We have a unique range of net, web and film products and support you with a dedicated salesforce and technical staff.

Partnering closely with our customers leads us to constant R&D innovation and the best, most competitive thermobonding solutions for your lamination process.

Your added value when choosing Protechnic

- Premium products
- Efficient and responsive service
- Reliable technical support
- Compliance with ISO 9001 quality standards
- Global coverage

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