3M

Graphic Protection Options
Overlaminates and clears

Product Bulletin

Products

This Bulletin provides an overview of all 3M graphic protection options.
All product-specific information for standard overlaminates is included in this Bulletin.

For a list of recommended base film and overlaminate solutions refer to the Graphics Solutions product catalogue brochure.

Standard Overlaminates

cast

3M™ Scotchcal™ Luster Overlaminate 3619
3M™ Scotchcal™ Matte Overlaminate 3620
3M™ Scotchcal™ Gloss Overlaminate 3640GPS
3M™ Scotchcal™ Matte Overlaminate 3642GPS
3M™ Scotchcal™ Gloss Overlaminate 8580
3M™ Scotchcal™ Matte Overlaminate 8580M
3M™ Scotchcal™ Gloss Overlaminate 8518
3M™ Scotchcal™ Luster Overlaminate 8519
3M™ Scotchcal™ Matte Overlaminate 8520
3M™ Scotchcal™ Ultra-Matte Overlaminate 8915
3M™ Scotchcal™ Graphic Film IJ70-114

calendered (polymeric)

3M™ Scotchcal™ Gloss Overlaminate 8018G
3M™ Scotchcal™ Matte Overlaminate 8020M
3M™ Scotchcal™ Gloss Overlaminate 8038G
3M™ Scotchcal™ Matte Overlaminate 8040M

calendered (monomeric)

3M™ Scotchcal™ Gloss Overlaminate 8008G
3M™ Scotchcal™ Matte Overlaminate 8010M

non-PVC polymer

3M™ Scotchcal™ Luster Overlaminate 8908
3M™ Scotchcal™ Matte Overlaminate 8909
3M™ Envision™ Gloss Wrap Overlaminate 8548G

Specialty Overlaminates	Graphic for Floors/Pavement	3M™ Scotchcal™ Luster Overlaminate 3645 3M™ Scotchcal™ Matte Overlaminate 3647 3M™ Scotchcal™ Matte Overlaminate 3649
	Perforated Window Graphic Film	3M™ Scotchcal™ Optically Clear Overlaminate 8914i
	Window Decoration	3M™ Scotchcal™ Clear View Graphic Film 8150
	Wall Application	3M™ Scotchcal™ Luster Overlaminate 8524
	Anti-Graffiti and Anti-Scratch	Scotchgard™ Graphic and Surface Protection Film 8991 Scotchgard™ Graphic and Surface Protection Film 8993 Scotchgard™ Removable Graphic and Surface Protection Film 8991R Scotchgard™ Graphic and Surface Protection Film 8995-124
Standard Clears	solvent based	3M™ Screen Print Dirt Resistant Gloss Clear 1920DR 3M™ Screen Print Matte Clear 1930
	UV based	3M™ Screen Print UV Gloss Clear 9800CL 3M™ Screen Print UV Gloss Clear 9740i
Specialty Clears	solvent based	3M™ Screen Print Clear 1955 ABC
	water based	3M™ Piezo Inkjet Protective Clear 8530

Guarantee and Warranty Information

A warranted or durability period may be offered based on graphic construction. Always refer to the 3M™ MCS™ Warranty or the 3M™ Performance Guarantee information available from 3M. See section *Additional Information* at the end of this bulletin for details.

Product Characteristics

These are typical values for unprocessed products.
Contact your 3M representative for a custom specification.

Product Number	Description	Material	Surface Finish	Thickness	Adhesive Type	Outdoor Durability*
IJ70-114	flexible and conformable	cast vinyl	glossy	50 μm (0.05 mm)	solvent acrylic pressure sensitive	6 years
3619	flexible, conformable, more durable	cast vinyl	glossy	50 μm (0.05 mm)	solvent acrylic pressure sensitive	8 years
3620	matte version of 3619		matte			8 years
3640GPS	highest protection from UV fading, dirt, graffiti, easy clean; thermoformable on plastic substrates	cast PVDF	glossy	50 μm (0.05 mm)	solvent acrylic pressure sensitive	12 years
3642GPS	matte version of 3640GPS		matte			
3645	for slip-, scuff- and foot traffic-resistance for floor graphics	cast vinyl	matte, structured surface	200 μm (0.2 mm)	solvent acrylic pressure sensitive	interior durability 12 months
3647	use for sidewalk signs for slip-, scuff- and foot traffic-resistance	cast vinyl	matte, structured surface	500 μm (0.5 mm)	solvent acrylic pressure sensitive	2 years
3649	for slip-, scuff- and foot traffic-resistance for floor graphics	calendered vinyl (monomeric)	matte, structured surface	120 μm (0.12 mm)	solvent acrylic pressure sensitive	interior durability 3 months
8008G	flexible and conformable	calendered vinyl (monomeric)	glossy	80 μm (0.08 mm)	waterbased acrylic pressure sensitive	3 years
8010M	matte version of 8008G		matte			
8018G	flexible and conformable	calendered vinyl (polymeric)	glossy	75 μm (0.075 mm)	waterbased acrylic pressure sensitive	5 years
8020M	matte version of 8018G		matte			
8038G	flexible and conformable	calendered vinyl (polymeric)	glossy	75 μm (0.075 mm)	solvent acrylic pressure sensitive	7 years
8040M	matte version of 8038G		matte			
8150	use with film 8150 for making optical clear window decorations	cast vinyl	glossy	50 μm (0.05 mm)	solvent acrylic pressure sensitive	7 years
8518	flexible and conformable	cast vinyl	glossy	50 μm (0.05 mm)	solvent acrylic pressure sensitive	8 years
8519	flexible and conformable	cast vinyl	glossy	50 μm (0.05 mm)	solvent acrylic pressure sensitive	8 years
8520	matte version of 8519		matte			

Product Number	Description	Material	Surface Finish	Thickness	Adhesive Type	Outdoor Durability*
8524	use with film IJ8624 for textured surfaces; conformable with heat	acrylic	glossy	50 µm (0.05 mm)	solvent acrylic pressure sensitive	7 years
8548G	unrivaled conformability and lifting resistance	non-PVC polymer	glossy	50 µm (0.05 mm)	polymelt pressure sensitive	12 years
8580	unrivaled conformability and lifting resistance	cast vinyl	glossy	25 µm (0.025 mm)	solvent acrylic pressure sensitive	6 years
8580M	matte version of 8580	cast vinyl	glossy	25 µm (0.025 mm)	solvent acrylic pressure sensitive	6 years
8908	flexible and conformable	Polyolefin	glossy	65 µm (0.065 mm)	solvent acrylic pressure sensitive	5 years
8909	matte version of 8908		matte			
8914i	optically clear for window graphics, conformable	cast vinyl	glossy	50 µm (0.05 mm)	solvent acrylic pressure sensitive	12 months
8915	flexible and conformable, reduces glare	cast vinyl	ultra-matte	50 µm (0.05 mm)	solvent acrylic pressure sensitive	8 years
Scotchgard™ 8991	superior substrate and surface protection from stains, abrasion, gouges, UV light, graffiti; easy to clean	extruded Polyester	high-gloss	100 µm (0.1 mm)	solvent acrylic pressure sensitive	5 years
Scotchgard™ 8991R	removable version of 8991					
Scotchgard™ 8993	superior substrate and surface protection from graffiti; easy to clean	extruded Polyester	high-gloss	25 µm (0.025 mm)	solvent acrylic pressure sensitive	5 years
Scotchgard™ 8995-124	superior substrate and surface protection from graffiti; easy to clean	extruded Polyester	matte	23 µm (0.023 mm)	solvent acrylic pressure sensitive	interior durability 5 years
Clear 1920DR	solvent-based, gloss with dirt resistance; ideal for frequently washed vehicles			minimum 6 µm (0.006 mm)	60 m²/l	5 years
Clear 1930	solvent-based, matte					3 years
Clear 1955ABC	two component solvent-bases; suitable for petroleum enviroments			minimum 6 µm (0.006 mm)	50 - 55 m²/l	5 years
Clear 8530	water-based clear, high luster gloss for piezo inkjet printed graphics; apply with liquid laminator			8 – 20 µm (0.008 – 0.02 mm)	20 m²/l	12 months
Clear 9740i	UV-cured, gloss			6 – 12 µm (0.006 – 0.012 mm)	70 – 85 m²/l	5 years
Clear 9800CL	UV-cured, gloss; suitable for petroleum enviroments if staining is not a concern			10 – 15 µm (0.01 – 0.015 mm)	70 – 85 m²/l	6 years

* see also section Durability below.

Durability

Since graphic durability is largely determined by the climate, the durability stated is based on average middle European exposure conditions.
It might vary according to the geographical location of the application.

For further information refer to the section Complementary Information at the end of this bulletin.

Notice!	The durability of a graphic construction follows from the component with the lowest statement can not be extended by use of a longer lasting overlaminate.
Shelf life	2 years from the date on the original box Up to 2 years unprocessed, or process within 1 year and apply within 1 year of processing
Storage conditions!	4°C to 40°C, out of sunlight, original container in clean and dry area

Flammability

Flammabiltiy standards are different from country to country.
Ask your local 3M contact for details, please.

Further information

For more details on the used terms and test methods check our caption/reference library, please.

Usage Details
Overlaminates

Please visit our website 3M.eu/graphicsolutions for more information on specific usage of 3M Inkjet Printing Materials for Solvent, UV and Latex Printing.

All products	Except as noted otherwise: - For use on 3M graphic film surfaces only - Overlaminates have to be applied with the cold roll method. - Moderate heated rollers (40°C maximum!) might be used for UV printed graphics for better appearance direct after lamination. - Minimize web tension of overlaminate to avoid stretching of product. Note: Both heat and web tension can cause the overlaminate or graphic construction to curl!
IJ70-114	Can be used as printable base film (see product bulletin of this product series).
3645	Provides a skid resistant walking surface. Skid resistance tested by European Test Method prEN1341 and 1342: Result: SRV=61 (dry surface). Note: Values SRV>35 are safe walking surfaces.
3647	Provides a skid resistant walking surface. Skid resistance tested by European Test Method prEN1341 and 1342: Result: SRV=49 (dry surface); SRV=40 (wet surface). Note: Values SRV>35 are safe walking surfaces.
3649	Provides a skid resistant walking surface. Skid resistance tested by European Test Method prEN1341 and 1342: Result: SRV=67 (dry surface). Note: Values SRV>35 are safe walking surfaces.
8150	Can be used as printable base film (see product bulletin of this product series).
8548G	Non-PVC laminate, required for horizontal applications with 3M 480Cv3.
8908	Heat sensitive products!
8909	Cold roll (room temperature) application only.
8914i	Provides optically-clear graphic protection and prevents moisture and contaminants from collecting in the base film's perforations.

Scotchgard™ 8991 8991R	Can be used in the range of gasoline vapors and spills as long as those are not able to penetrate the edges of the film.
	Can be used on substrates other than graphic film!
	Application to aluminum, glass, PMMA, PC*, ABS, paint on flat surfaces.
	Service Temperature range: -54°C to +107°C. Min. application temperature: +10°C
Scotchgard™ 8993	Can be used in the range of gasoline vapors and spills as long as those are not able to penetrate the edges of the film.
	Can be used on substrates other than graphic film!
	Application to glass, metal, rigid plastics, paint on flat surfaces.
	Service Temperature range: -54°C to +93°C. Min. application temperature: +10°C
Scotchgard™ 8995-124	Can be used on substrates other than graphic film!
	Application to aluminum, glass, PMMA, PC*, ABS, paint on flat surfaces.

Clears

All products	- For use on graphic film surfaces only
	- Additional important information available at named product bulletins below
Clear 1920DR Clear 1930	3M™ Screen Printing Ink Series 1900
Clear 1955ABC	3M™ Screen Print Clear 1955 ABC
Clear 8530	3M™ Piezo Inkjet Protective Clear 8530
Clear 9740i	3M™ Screen Print Gloss Clear 9740i
Clear 9800CL	3M™ Screen Printing UV Ink Series 9800

Limitations of End Uses

3M specifically does not recommend or warrant the following uses, but please contact us to discuss your needs to recommend other products.

Overlaminates

All overlaminates	Except as noted otherwise in this section or section Usage Details:
	- Not for applications to substrates other than graphic films.
	- Not for applications to substrate surface shapes other than specified in this section or recommended in the product bulletin of the base film used for graphic construction.
	- Not for graphics subjected to gasoline vapors or spills at gas pumps, automobile fuel-tank ports, or top-feeding petroleum tankers.
	- Do not print on overlaminate.
	- 3M Commercial Graphics Division products are not tested against automotive manufacturer specifications!
	- Non vertical applications will have a significant decrease in durability!
3640GPS 3642GPS	Not for application to other 3M brand GPS films or Panagraphics III substrate or for graphics subjected to intentional or accidental abrasion.
	Not recommended for protection of fleet graphics.
3645	Not for exterior usage.
	Use with recommended base films only.
3647	No exposure to vehicle traffic and heavy equipment.
	Use with recommended base films only.
3649	Not for exterior usage.
	Use with recommended base films only.

8150	Use with recommended base films only.
8524	Use with recommended base films only.
8908	No application to outdoor banner materials and reflective graphic film.
8909	No heat applied to premasked graphics.
	Not for use on films that must be streched during application. Excessive stretching causes the overlaminte to appear white.
8914i	Do not use application tape for any graphics made with this overlaminate.
Scotchgard™ 8991 8991R	Not for use for other than flat surfaces. Not for cut film applications, flexible substrates, gypsum wallboard, poor paint adhesion, porous or unsealed surfaces. Not for vandalism or excessive product misuse that damages the substrate.
Scotchgard™ 8993	Not for use for other than flat surfaces.

Clears	All Clears	Limitations of End Uses like described in the corresponding product bulletin (see usage details)

Application Tape

Application tape may be used to add stiffness to a graphic for easier application, hold cut graphics together while applying, or to protect graphics from scratching and other damage during application. However, many graphics with an overlaminate do not require an application tape.

See Instruction Bulletin Application Tape Recommendations for information about selection and use of suitable application tapes, please.

Maintenance and Cleaning

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline.)

Refer to Instruction Bulletin 6.5 'storage, handling, maintenance and removal of films and sheetings', for general maintenance and cleaning information.

Shipping Finished Graphics

Flat, or rolled printed side out on 130 mm (5") or larger core. These methods help to prevent the liner from wrinkling or popping off the film.

Remarks

This bulletin provides technical information only.

Important Notice

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

Additional Information

Visit the web site http://www.3Mgraphics.com for getting more:

- details about 3M MCS Warranty and 3M Performance Guarantee
- additional instruction bulletins
- a complete product overview about materials 3M is offering.

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