



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.

Standard Overlaminates

cast	3M™ Scotchcal™ Luster Overlamine 3619 3M™ Scotchcal™ Matte Overlamine 3620 3M™ Scotchcal™ Gloss Overlamine 3640GPS 3M™ Scotchcal™ Matte Overlamine 3642GPS 3M™ Scotchcal™ Gloss Overlamine 8580 3M™ Scotchcal™ Gloss Overlamine 8518 3M™ Scotchcal™ Luster Overlamine 8519 3M™ Scotchcal™ Matte Overlamine 8520 3M™ Scotchcal™ Ultra-Matte Overlamine 8915 3M™ Scotchcal™ Graphic Film IJ70-114
calendered (polymeric)	3M™ Scotchcal™ Gloss Overlamine 8019 3M™ Scotchcal™ Matte Overlamine 8020 3M™ Scotchcal™ Graphic Film IJ40-114 3M™ Scotchcal™ Graphic Film IJ40-124
calendered (monomeric)	3M™ Scotchcal™ Graphic Film IJ20-114R 3M™ Scotchcal™ Graphic Film IJ20-124R 3M™ Scotchcal™ Graphic Film IJ25-114
Polyolefin	3M™ Scotchcal™ Luster Overlamine 8908 ES 3M™ Scotchcal™ Matte Overlamine 8909 ES

Specialty Overlaminates

Graphic for Floors/Pavement	3M™ Scotchcal™ Luster Overlamine 3645 3M™ Scotchcal™ Matte Overlamine 3647 3M™ Scotchcal™ Matte Overlamine 3649
Perforated Window Graphic Film	3M™ Scotchcal™ Optically Clear Overlamine 8914i
Window Decoration	3M™ Scotchcal™ Clear View Graphic Film 8150
Wall Application	3M™ Scotchcal™ Luster Overlamine 8524
Anti-Graffiti and Anti-Scratch	3M™ Scotchcal™ High Gloss Overlamine 639 3M™ Scotchcal™ High Gloss Graffiti-Resistant Overlamine 8912 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 9720UV

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*
SC IJ20-114R	flexible and conformable	calendered vinyl (monomeric)	glossy	70 µm (0.07 mm)	waterbased acrylic pressure sensitive	2 years
SC IJ20-124R	matte version of 20-114		matte			
SC IJ25-114	flexible and conformable	calendered vinyl (monomeric)	glossy	70 µm (0.07 mm)	waterbased acrylic pressure sensitive	2 years
SC IJ40-114	flexible and conformable	calendered vinyl (polymeric)	glossy	75 µm (0.075 mm)	solvent acrylic pressure sensitive	5 years
SC IJ40-124	matte version of 40-114		matte			
SC IJ70-114	flexible and conformable	cast vinyl	glossy	50 µm (0.05 mm)	solvent acrylic pressure sensitive	6 years
SC639	superior substrate and surface protection from graffiti; easy to clean	extruded Polyester	high-gloss	0.23 µm (0.023 mm)	solvent acrylic pressure sensitive	5 years
SC3619	flexible, conformable, more durable	cast vinyl	glossy	50 µm (0.05 mm)	solvent acrylic pressure sensitive	8 years
SC3620	matte version of 3619		matte			8 years
SC3640GPS	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
SC3642GPS	matte version of 3640GPS		matte			
SC3645	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
SC3647	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	3 months
SC3649	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
SC8150	use with film SC8150 for making optical clear window decorations	cast vinyl	glossy	50 µm (0.05 mm)	solvent acrylic pressure sensitive	7 years
SC8019	flexible and conformable	calendered vinyl (polymeric)	glossy	75 µm (0.075 mm)	solvent acrylic pressure sensitive	5 years
SC8020	matte version of 8019		matte			
SC8518	flexible and conformable	cast vinyl	glossy	50 µm (0.050 mm)	solvent acrylic pressure sensitive	7 years

SC8519	flexible and conformable	cast vinyl	glossy	50 µm (0.050 mm)	solvent acrylic pressure sensitive	7 years
SC8520	matte version of 8519		matte			
SC8524	use with film IJ8624 for textured surfaces; conformable with heat	acrylic	glossy	50 µm (0.05 mm)	solvent acrylic pressure sensitive	6 months
SC8580	unrivaled conformability and lifting resistance	cast vinyl	glossy	25 µm (0.025 mm)	solvent acrylic pressure sensitive	6 years
SC8908	flexible and conformable	Polyolefin	glossy	65 µm (0.065 mm)	solvent acrylic pressure sensitive	5 years
SC8909	matte version of 8908		matte			
SC8912	graffiti-resistant	extruded Polyester	high-gloss	25 µm (0.025 mm)	solvent acrylic pressure sensitive	5 years
SC8914i	optically clear for window graphics, conformable	cast vinyl	glossy	50 µm (0.05 mm)	solvent acrylic pressure sensitive	12 months
SC8915	flexible and conformable, reduces glare	cast vinyl	ultra-matte	50 µm (0.05 mm)	solvent acrylic pressure sensitive	7 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 environments			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 9720UV	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 environments 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

Flammability 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

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!

SC IJ20-114R Can be used as printable base film (see product bulletin of this product series).
SC IJ20-124R

SC IJ40-114 Can be used as printable base film (see product bulletin of this product series).
SC IJ40-124

SC IJ70-114 Can be used as printable base film (see product bulletin of this product series).

SC639 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.

SC3645 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.

SC3647 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.

SC3649 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.

SC8150 Can be used as printable base film (see product bulletin of this product series).

SC8908 Heat sensitive products!

SC8909 Cold roll (room temperature) application only.

SC8914i	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 9720UV	3M™ Screen Print Gloss Clear 9700UV
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	<u>Except as noted otherwise in this section or section Usage Details:</u> - 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 over laminate. - 3M Commercial Graphics Division products are not tested against automotive manufacturer specifications! - Non vertical applications will have a significant decrease in durability!
SC639	Not for use for other than flat surfaces. Not for plastics, glass or flexible substrates

SC3640GPS SC3642GPS	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.
SC3645	Not for exterior usage. Use with recommended base films only.
SC3647	No exposure to vehicle traffic and heavy equipment. Use with recommended base films only.
SC3649	Not for exterior usage. Use with recommended base films only.
SC8150	Use with recommended base films only.
SC8524	Use with recommended base films only.
SC8908 SC8909	No application to outdoor banner materials and reflective graphic film. No heat applied to premasked graphics. Not for use on films that must be stretched during application. Excessive stretching causes the overlaminite to appear white.
SC8912	Not for plastics, glass or flexible substrates. For electrostatic printed graphics only.
SC8914i	Do not use application tape for any graphics made with this overlaminite.
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. Graphic has to be converted and applied according to Instruction Bulletin 5.32_EU
Scotchgard™ 8995-124	Not for exterior usage.

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 overlaminite 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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