



3M™ Overprint Clear & Edge Sealer Series 1955 ABC

Description

3M™ Overprint Clear & Edge Sealer Series 1955 ABC is a petroleum and alcohol resistant two component overprint clear. It is intended as a protective clear coat for selected 3M™ Controltac™ Plus, 3M™ Scotchcal™ films and 3M™ Scotchlite™ reflective sheeting.

This clear coat shows excellent weather and abrasion resistance. Series 1955 ABC overprint clear is intended for use on markings, which may be subject to petrochemical spillage.

Product Line

1955 ABC	
1955A	Clear Coat
1955B	Hardener
1955C	Thinner

Packaging

The clear coat and the hardener are sold as a kit. Available kit size is:

Part A: 5 litres

Part B: 0.5 litres

Part C: two 1 litre containers

The thinner C is sold separately in one litre containers.

Premasking / Prespacing

Conditions	3M Application Tapes
General Premasking	SCPS-100
General Prespacing	SCPS-2

Coverage

One litre of press ready clear coat will cover approximately 50 – 55 square metres when thinned 15% - 20 % with thinner C and printed with a 90 T mesh. Do not use a screen mesh finer than 90T as this will result in an insufficient thickness of the printed clear coat, which will reduce the durability of the graphic.

Mixing

When mixing the three components of Series 1955 ABC clear coat, a high-speed power mixer has to be used.

The ratio of the component A and the hardener component B is 10 parts to 1 part by weight.

1955 ABC mixing ratio		
Component	A	B
Parts	10	1

Use only 1955 C to thin the clear down to print viscosity.

Start with 15% of thinner C and check the flow out of the clear coat on the film after the third print.

Depending on the ambient temperature and the equipment used, up to 20% of thinner C may be used.

Note: Do not use any other solvent than thinning component C.

The pot life of the mixed clear is about 6 hours.

SCREEN PRINTING

Screen Fabric

To provide sufficient thickness of the clear a 90 T fabric is required.

Stencil

Direct emulsions as used for solvent based inks.

Drying Conditions

Conveyor dry for 50 – 60 seconds at 65 C measured in the heated sections only.

Temperature Check of the Conveyor Dryer

Check the proper temperature prior to starting clear coating by using a 3M Thermometer Strip 5420, which can be ordered from:

3M United Kingdom PLC
3M House, 28 Great Jackson Street
Manchester, M15 4PA

Tel: 0161 237 6393

Fax: 0161 237 6136

Whilst printing the clear coat repeat the temperature check after about five minutes run time as the loaded conveyor dryer might have to be re-adjusted, i.e. the temperature gauge might have to be set to 70 C to get 65 C on the conveyor belt during the run.

Stick the thermometer stripes on both sides of the sheet thus making sure that air outlet side (colder side of the conveyor) still features 65 C.

The heat distribution of the conveyor might vary by 10 C from side to side, i.e. from the operator's side of the conveyor to the other side.

Note: After mixing, the Over Print Clear 1955 has a pot life of about six hours. Do not mix more clear coat in one batch than you will use up in about four working hours.

After four hours the clear coat will start to harden in the container as well as in the stencil slowly but steadily.

The start of this process is indicated by a sudden lack of flow out of the clear coat while printing.

Do not attempt to wash the fabric during processing of the clear coat with a solvent other than thinner 1955C. A violent chemical reaction (hardening) of the clear coat might occur thus rendering the stencil and the fabric useless.

Air-drying is not recommended, however with strong air ventilation the clear will be dry-to-touch in 20 –25 minutes at room temperature.

Drying time varies with shop conditions (ambient temperature and R.H.) and conditions of the dryer being used.

However, if only air-drying is being used it is recommended to leave the clear-coated sheets in racks over night with the ventilators on thus ensuring proper drying and ventilation of the clear-coated graphics.

Before applying the application tape, make sure that the overprint clear is properly dried.

Test laminate a stripe of application tape, let it sit for an hour and remove the tape.

The force needed for the removal of the tape from the clear-coated graphic should be the same as if 3M™ Gloss Overprint Clear 1920DR clear coat were used. The tape should not leave an impression on the clear coat after being removed.

If the force needed is higher than usual, the graphics should be left on racks for additional drying time.

Edge Sealing with 3M™ Scotchcal™ 1955 ABC

Graphics to be edge sealed with 1955 ABC must be clear coated with 1955 ABC prior to edge sealing.

1955 ABC can also be used as an edge sealer when thinned to the correct viscosity which allows the application of a thin layer of clear coat with a paint brush.

Start by adding 5% of thinner C to the mixture of components A and B and test in an inconspicuous area of the clear-coated graphic for flow out.

The brush strokes should become invisible after a few seconds thus leaving an even coat of edge sealer on the edge of the graphic.

If the clear coat runs, reduce the amount of thinner, if the brush strokes do not disappear after a few seconds, use more of the thinner C.

Note: 3M™ Edge Sealer 1955 ABC may damage paints. Test the edge sealer in a small, inconspicuous area prior to use.

For detailed instruction information, please refer to Instruction Bulletin 24.

Warranty

Graphics screen-printed with overprint clear 1955 ABC are warranted for 5 years. This warranty period is reduced for films which feature a shorter durability than the clear coat.

Performance is based upon field experience and exposure tests conducted throughout Europe and the United States and can be affected by substrate selection and preparation, exposure conditions and maintenance of the marking.

When printed and applied in accordance with 3M recommended procedures, performance life is subject to the following qualifications.

- Markings are warranted against fading, cracking, peeling, lifting or discoloration due to natural weathering.
- Markings are neither warranted against the removal of the ink or clear coat, damage of the base film, lifting, staining caused by the use of non-approved cleaning methods, solutions or solvents nor excessive abrasion.
- Changes in appearance caused by bird dropping, insect fluids and dirt are not covered by this warranty.
- Markings are not warranted if applied onto other than flat surfaces, to unsound surfaces, to surfaces which subsequently crack, peel and

outgas nor if the graphic was applied to damaged paint surfaces.

- Markings fabricated with non-3M inks, films of application tapes are not warranted either.
- Markings are not warranted against damage from any cause, which could be covered by appropriate insurance.

Storage

3M™ 1955 ABC Overprint Clear and Edge Sealer should be stored at temperatures between 21°C and 32°C (70 - 90°F) and used within one year of the date of purchase.

Note: 1955B is hygroscopic and has to be kept in a dry place otherwise the hardener will prematurely react with the ambient humidity and will become chemically inert.

Related Literature

Listed below is related 3M technical literature that may be of interest. Contact your local 3M sales or technical representative to order these bulletins.

Subject	Bulletin
3M™ Screen Printing Ink Series 1900	1900
Screen printing with Screen Printing Ink Series 1900 Line colour	3.12
Screen printing with 4-colour Screen Printing Ink Series 1900	3.11
Edge Sealing of 3M™ Scotchal, 3M™ Controltac™ Plus and 3M™ Scotchlite™ Sheeting	5.5
Scoring and Cutting	4.1
Premasking and Prespacing	4.3
Surface Preparation	5.1
Application	5.4, 5.5
Storage, Maintenance and Film Removal	6.5

Glossary of Terms

Matched Component System™ or MCS™

The system pursuant to which Finished Graphics are produced by a Graphic Manufacturer using only 3M Products and components and manufactured in accordance with 3M's Product or Instruction Bulletins, 3M Specification Document and using 3M Approved Technologies.

3M™ Controltac™ Plus

A film with 3M™ Controltac™ Plus positionable adhesive system has million of precision-placed microscopic glass spheres embedded within its adhesive layer. These spheres help to prevent the adhesive from fully contacting the application surface until pressure is applied. This enables the graphic to be positioned, then re-positioned as many times as necessary, until it is in exactly the right place before final application.

3M™ Comply™ Performance

With its remarkable 'bubble and wrinkle free' application feature, 3M™ Comply™ Performance is the next step in speeding and easing graphic application. The adhesive layer has been developed to contain uniquely-configured channels which allow air to escape during application.

Removable Adhesive

Films with removable adhesive can be lifted easily from most suitable substrates and may require the application of heat to add the process.

Health & Safety

Refer to the package label and the Material Safety Data Sheet for health, safety, and handling information on the products referenced in this bulletin. For 3M products, if necessary, you may contact our Toxicology/Product Responsibility Department on 01344 858000.

Important Notice to Purchaser

The 3M products described in this publication are covered by a 3M warranty and limitation of liability.

3M's warranty provides that if 3M finds that goods are defective in material or workmanship they will be replaced or the price refunded at 3M's option but note that 3M does not accept liability for other direct losses (except for personal injury or death) or consequential losses relating to defective products or from information supplied by 3M.

Purchasers and users of 3M products, and not 3M supplying companies, are always solely responsible for deciding on the suitability of the 3M product for their required or intended use.

Technical Assistance

For help on specific questions relating to 3M Commercial Graphics Division Products, contact your local Technical Service Representative.

Commercial Graphics Department
3M United Kingdom PLC
3M Centre, Cain Road, Bracknell
Berkshire, RG12 8HT
Tel: 01344 857850
Fax: 01344 857939
e-mail: commgraphics.uk@mmm.com
www.3m.com/uk/graphicsolutions
www.scotchprint.com/uk

Sales Assistance

Commercial Graphics Group
3M United Kingdom PLC
3M House, 28 Great Jackson Street
Manchester, M15 4PA
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