



*Durafol*<sup>®</sup> - thermal transfer printable labelstock that offers superior chemical, temperature and abrasion resistance

01-980



*Durafol*<sup>®</sup> thermal transfer printable polyester enables the production of on-demand high performance variably printed labels. The products offer superior chemical, temperature and abrasion resistance without the use of an overlaminating film.



*Durafol*<sup>®</sup> is intended to be of particular use in applications requiring extreme chemical and mechanical resistance, including under-bonnet marking in the automotive industry, aerospace identification, laboratory facilities, the chemical industry and general industrial labels where variable information, barcode traceability and extreme chemical and abrasion resistance are prerequisites.



*Durafol*<sup>®</sup>'s superior chemical resistance allows it to be thermal transfer printed and exposed to a variety of harsh chemicals such as toluene, brake fluid, Skydrol<sup>®</sup> and acetone. This high durability is achieved as a result of the engineered synergy between *Durafol*<sup>®</sup> polyester and the Ricoh B110CU thermal transfer ribbon. The film exceeds the performance of conventional grades of printable polyester where the print and/or the topcoating can be removed when exposed to such harsh fluids.

*Durafol*<sup>®</sup> polyester is available in matt white, matt silver and matt clear and is coated with a range of high performance adhesives offering superior adhesion, chemical and elevated temperature resistance.

Skydrol<sup>®</sup> is a registered trademark of Solutia Inc.

High chemical resistance 

High temperature 

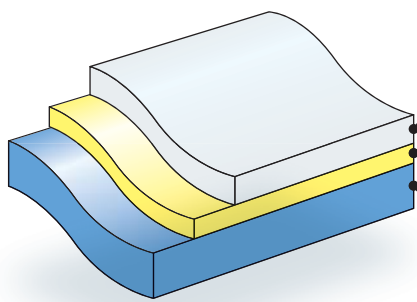
Abrasion resistant 

Permanent adhesive 

Superior printability 

# Chemical resistant white printable polyester film

01-980



- **Facestock:** 50 micron matt white top coated polyester offers excellent chemical resistance combined with very good humidity, elevated temperature and UV resistance. Designed to accept conventional ink and Ricoh B110CU thermal transfer ribbon.
- **Adhesive:** P100 High performance permanent acrylic adhesive has very good chemical, humidity, elevated temperature and UV resistance. Peel adhesion values are outstanding on most surfaces and will generally increase as a function of time and temperature. P100 offers a very good balance of high coat weight adhesive versus ease of conversion. Automotive approved.
- **Liner:** LR09 is an 90gsm white release coated glassine liner. The glassine liner has been selected for flat bed and rotary die cutting performance.

### Product description:

Durafol® – 01-980 50 micron matt white top coated polyester offers superior chemical resistance combined with good, humidity, elevated temperature and UV resistance. 01-980 top coating has been specifically designed to work in synergy with Ricoh B110CU thermal transfer ribbon for optimum chemical resistance performance. 01-980 is coated with P100 which exhibits excellent adhesion on a broad range of surfaces combined with very good chemical and elevated temperature resistance.

### Typical applications:

Chemical resistant labels.

### Typical industry sectors:

Automotive, chemical storage, electronic and pharmaceutical.

General characteristics:				
Properties	Typical values		Unit of measure	Test method
<b>Physical</b>	○ Facestock ● Adhesive ● Liner		60μ ± 10% 35gsm ± 10% 84μ ± 10%	FTM 12
<b>Peel adhesion</b>	<b>Initial</b>	<b>24 hours</b>	N/25mm @ 23°C, 50% RH	FTM 1
Stainless steel	16.7	24.3		
Glass	15.6	22.8		
Polypropylene	4.8	11.2		
<b>Shear resistance</b>	Good		Minutes	FTM 8
<b>Dimensional stability</b>	Excellent		mm	FTM 14
<b>Chemical resistance</b>	Excellent*		Grey scale	AATCC 8
<b>Min. application temperature</b>	+4°C		Celsius	
<b>Service temperature range</b>	-40°C to +149°C		Celsius	
<b>Outdoor durability</b>	Two years		Vertical exposure	

\* Heat and pressure settings on thermal transfer printer influences anchorage of Ricoh B110CU ribbon and therefore chemical resistance performance.

01-980

## Print performance:

Test labels were thermal transfer printed with a **RICOH** B110CU ribbon.

### Chemical resistance of printed image

Chemical	Unit of measure	Test result	Test method	Observations
IPA	100 rubs	5	AATCC 8	No transfer of ribbon
Ethanol	100 rubs	5	AATCC 8	No transfer of ribbon
Acetone	100 rubs	5	AATCC 8	No transfer of ribbon
Xylene	100 rubs	5	AATCC 8	No transfer of ribbon
MEK	100 rubs	5	AATCC 8	No transfer of ribbon
White Spirit	100 rubs	5	AATCC 8	No transfer of ribbon
SP95 Fuel	100 rubs	5	AATCC 8	No transfer of ribbon
SP98 Fuel	100 rubs	5	AATCC 8	No transfer of ribbon
Diesel	100 rubs	5	AATCC 8	No transfer of ribbon
Brake Fluid	100 rubs	5	AATCC 8	No transfer of ribbon
Skydrol®	100 rubs	5	AATCC 8	No transfer of ribbon
Toluene	100 rubs	4	AATCC 8	Minimal transfer of ribbon

### Heat Resistance of printed image

Temperature	Unit of measure	Test result	Test method	Observations
250°C	2 sec 3.6kgf/cm	5	Madico MTM 0016	No transfer of ribbon

The amount of ribbon transfer is rated against the AATCC 8 color chart; 1 to 5.

1 = high percentage print/colour transfer onto crocking cloth 5 = no print/colour transfer onto crocking cloth

### Abrasion of printed image

Performance criteria	Unit of measure	Test result	Test method	Observations
Taber Abrasion	CS10 500g load	40 cycles	ASTM DI044	Bar code and text readable

**Note** - Durafol® will only offer the above chemical resistance when printed with a Ricoh B110CU ribbon and an industrial thermal transfer printer. **The use of other ribbons is not recommended.** Small desktop printers are also not recommended due to insufficient pressure and head energy.

**Adhesive** - Durafol® is coated with a selection of high performance acrylic adhesives.

Full technical datasheets available on request.

The representations of performance and suitability for use contained in this data sheet are meant only as a guide. Since only the user is aware of the specific conditions in which the product is to be used, it is the user's responsibility to determine whether the product is suitable for that intended use. Copyright 1995

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