



# TTP Continuous Polyester for decals

## Technical Datasheet

TTDS-031 Revision 6 - May 2016

**TTP is a continuous format Polyester material with a permanent acrylic adhesive designed for high durability label applications.**

TTP is suitable for thermal transfer printing to create decals, nameplates, banners and logos.

The product is available in several colours with white (WP), clear (CP) and metalized silver (MP) as standard. Typical industry use includes aerospace, defence, electronics and infrastructure. Print performance and durability can only be guaranteed when printed using TE Connectivity printers ribbons and software, as shown in TE Connectivity Printer Ribbon Matrix 411-121005.

TTP labels are available as part of a complete identification system. The system comprises specific printers, thermal transfer ribbons and WINTOTAL and Print Easy software.

# TTP DECAL MATERIAL

## Features

- Available in continuous format
- Standard colours are clear, white and metalized silver
- Other colours available on request
- Interior and exterior aircraft use including flight entertainment and deck instrumentation

## Temperature Rating

- Operating Temperature Range  
-40°C to 150°C (-40°F to 302°F)
- Minimum Application Temperature 10°C (50°F)

## Specifications / Approvals

<b>Industry</b>	WP White Polyester - UL MH17292 Group PGJ12 (WP1) UL MH17292 Group PGJ18 (WP1) MP Metalized Polyester - UL MH17292 Group PGJ12 (MP1) UL MH17292 Group PGJ18 (MP1)
<b>Military Specification</b>	Meets the requirements of MIL-AA-59485, test method MIL-P-38477A

## Applications

- Bar coding
- Graphics
- Industrial and Commercial applications
- Aerospace & Defence Applications

## Design for Environment

- Does not contain any declarable or prohibited substances from the UNIFE Railway Industry Substances List
- Further information and a downloadable declaration covering RoHS and REACH compliance can be found at the TE Product Compliance Support Centre:

<http://www.te.com/usa-en/utilities/product-compliance.html>

## Shelf Life

2 years when following good commercial storage practice detailed below

## Storage

Product should be stored in the original packaging, with any plastic covers which were included during shipping. Store out of direct sunlight in a clean, dry, dust free, environment. Product should not be stored outside of the designed storage temperature, which is -10°C (14°F) to +40°C (104°F).



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**Technical Performance**

	Requirement / Method	Result
<b>Print Permanence</b>		
Marking Adherence	SAE AS 5942, 20 rubs	Pass
Resistance to Solvents	TE test method 109-121012	Pass
Resistance to TE industrial fluids		
<ul style="list-style-type: none"> <li>Isopropyl alcohol</li> <li>IRM 902</li> <li>MIL PRF 23699</li> <li>Skydrol LD4</li> <li>MIL-H-83282</li> <li>Diesel Fuel</li> <li>Kilfrost DF plus</li> <li>Tap water</li> <li>5% Salt solution</li> <li>Detergent (1% Teepol)</li> </ul>	24 hours immersion at 23°C followed by mark adherence Requirement for all fluids legible minimum print contrast score C3*, legible.  *Print contrast as defined in TE doc.411-121002	Pass Pass Pass Pass Pass Pass Pass Pass Pass Pass
<b>Adhesion to substrate</b>	FTM 1 (180°) 72 hour dwell at 23°C +/- 2°C, 50% RH +/- 5% RH	<b>Typical adhesion</b>
<ul style="list-style-type: none"> <li>Stainless steel</li> <li>Glass</li> <li>Aluminium</li> <li>Polypropylene</li> <li>Epoxy Painted Surface</li> </ul>		19 N/25 mm (69.4 oz/in) Pass 19 N/25 mm (69.7 oz/in) Pass 13 N/25 mm (45.7 oz/in) Pass 12 N/25 mm (44.6 oz/in) Pass 21 N/25 mm (75.5 oz/in) Pass

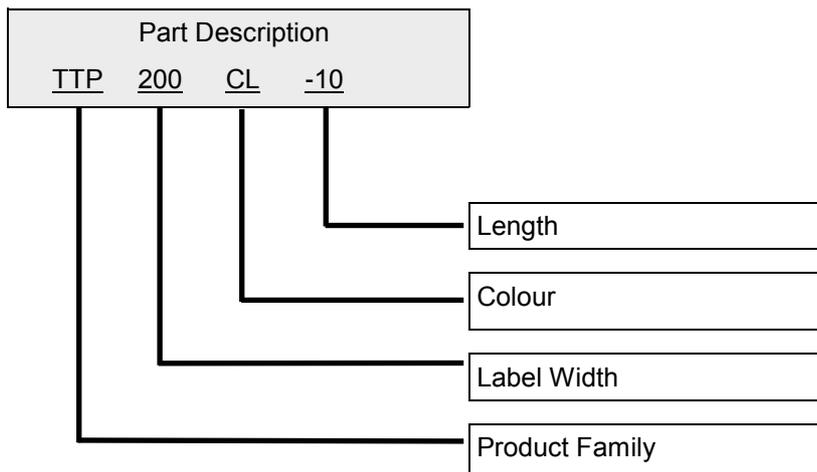
**Typical Label Thickness Details**

- Facestock: 0.05 mm / 0.0020 inch
- Adhesive: 0.022 mm / 0.0087 inch
- Liner: 0.056 mm / 0.0022 inch

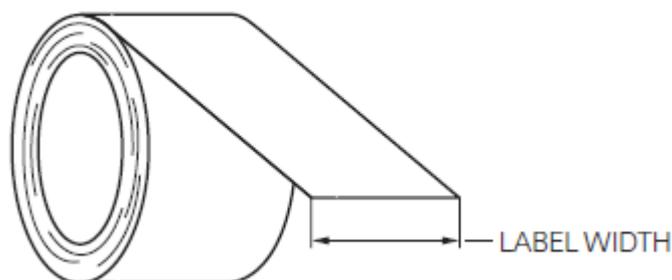
**Solder Immersion (tested for WP and MP)**

After 10-second immersion at 250°C (480°F) in molten (lead free) solder: slight yellowing and print remains legible

Where possible, TE have tested product as a finished item, including the print. Operational tests are followed by an assessment of mark adherence to validate fit form and function.



**Ordering Information**



**Available sizes and formats**

Ordering description	Label Width		Roll length		Quantity per pack
	(mm)	(inches)	(meters)	(feet)	
TTP200<colour>-10	50.8	2.000	30.5	100	continuous
TTP300<colour>-10	76.2	3.000	30.5	100	continuous
TTP400<colour>-10	101.6	4.000	30.5	100	continuous
TTP600<colour>-10	152.4	6.000	30.5	100	continuous

**Options**

Colours	Standard	Clear	White	Metalized silver	
	Code	CL	WE	MP	

Other colours available upon request

Ordering example: TTP400WE-10

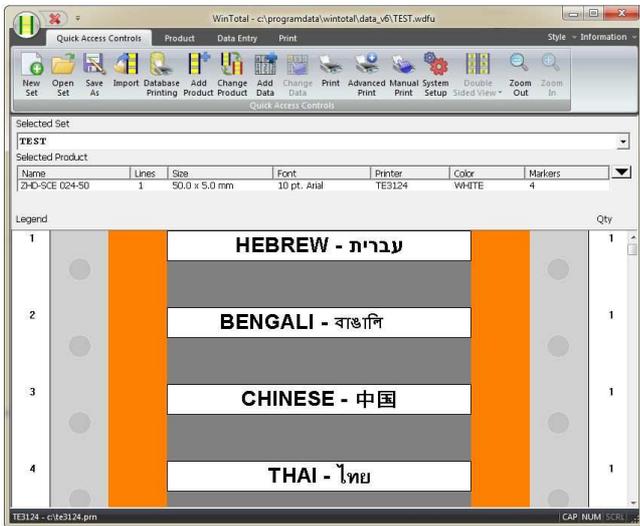


**Printer Information**

Print quality and print performance can only be guaranteed when specific TE printer and ribbons are used.

The current list of printers and ribbons can be found in TE document 411-121005 'Identification Printer Product Ribbon Matrix'. This document can be found in 'Access Our Tools':

<http://www.te.com/usa-en/utilities/access-product-tools->



**Software**

WINTOTAL software, available to download for a 14 day evaluation period from the Identification Printer Software page:

<http://www.te.com/usa-en/products/identification-labeling/printers-software/printing-software.html?tab=pgp-story>

Print Easy software also available

Contact a TE representative for further information



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