

PVF Tedlar™

Tedlar™ labels

Technical Datasheet

TTDS-138 Revision 3

October 2024

PVF is a thermal transfer printable polyvinyl fluoride self-extinguishing label with a permanent acrylic adhesive. This label is designed for wire and cable marking and other general labelling applications that require self-extinguishing properties.

PVF labels are ideal in a variety of harsh physical and chemical environments, especially aerospace and military applications.

PVF products are available as part of a complete identification system. The system comprises of specific printers, thermal transfer ribbons and WINTOTAL software.

PVF Tedlar™

Features

- Self extinguishing
- Thermal transfer printable labels
- For use as a wire bundle or cable wrap-around marker
- Range of sizes available
- Good adhesive strength and resistance to ageing
- Resistant to a variety of solvents

Applications

- Aerospace and Defense
- Industrial
- Electrical
- Electronics

Shelf life

- Three 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 be stored at approximately 21°C (70°F) and 50% R.H.

Specifications

- ASTM D1000
- MIL-M-87958
- BMS 13-47
- GAT100BA
- P5269
- GM802AD

Temperature rating

- Operation Temperature Range: -40°C to 135°C (-40°F to 275°F)
- Minimum application temperature: 10°C (50°F)

Design for Environment

- Does not contain any RoHS (EU 2015/868) substance
- Does not contain any California Prop 65 substances
- No restricted substances as listed in the Toxic Substances Control Act
- 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>

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.



PVF Tedlar™

Typical Label Thickness

- Label (including adhesive): 0.086 mm (0.0034 inch)
- Liner: 0.125 mm (0.0049 inch)

Technical Performance

	Requirements	Results
Print Permanence		
Marking of Electrical Insulating Materials, SAE AS 5942	Legible ⁽¹⁾ (min. C3) after 30 rubs 1kg weight with an eraser	Pass
Adhesion		
		Peel force (N/25mm (oz/in.))
Test surface:		
• Stainless steel	ASTM D1000 (180°)	17.52 (63.94)
• Backing		15.23 (55.60)
Breaking strength and Elongation		
• ASTM D1000	> 20 lbs/inch	20.82 lbs/inch, Pass
	Minimum 75%	162.20 %, Pass
Dielectric breakdown		
• ASTM D149	Greater than 2500 Volts RMS	4020 V, Pass
Thermal performance MIL-M-87958		
• Low temperature exposure	No cracking, no loosening, no splitting. No separation of flag or unrolling	Pass
• High temperature exposure		Pass
Flammability		
• ASTM D1000	Label must be self extinguishing	Pass
Smoke		
• BSS7238	Less than a specific optical density of 50 after 4 min.	Pass
Toxicity		
• BSS7239	Less than limits listed in table VI BMS 13-47 rev. L	Pass
Fungus		
• ASTM G21-15 (2021)	No growth of fungus	Pass
Corrosion		
• BMS13-47 rev. L	Copper not corroded by contact with the label stock. Electrical resistance of the copper wire shall not increase by more than 2%	-0.27%, Pass

⁽¹⁾According to TE doc 411-121002

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.

Technical Performance

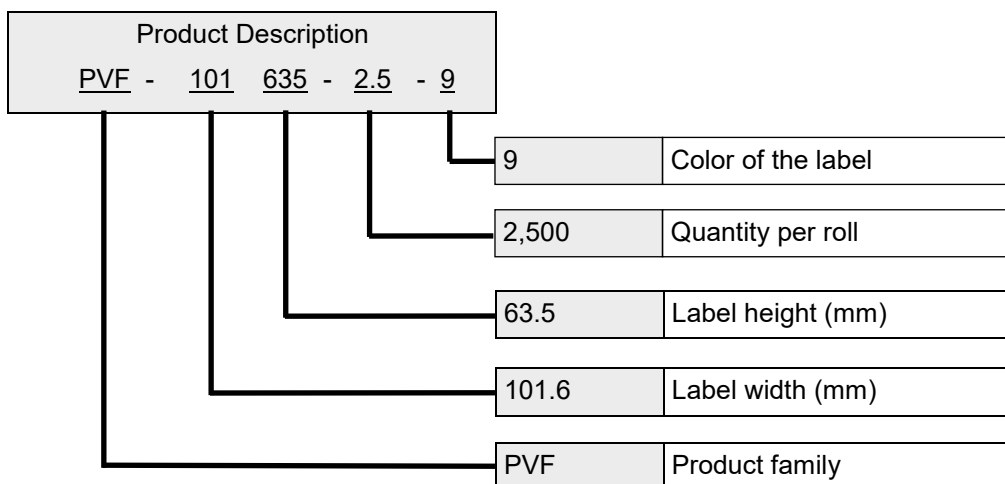
	Requirements	Results
Fluid Exposure MIL-M-87958		
• Methyl Alcohol at 23°C		Pass
• 5% Saline solution at 23°C	Adhesion to steel and Adhesion to backing >15oz/in	Pass
• JP5		Pass ⁽²⁾
• JP8	No detrimental of the label on wrap and flag application	Pass ⁽²⁾
• MIL-PRF-7808 Lubricating Oil at 23°C		Pass
• MIL-PRF-23699 Laundry Oil at 23°C	Print shall remain legible ⁽¹⁾	Pass
• MIL-D-43362 Laundry Detergent at 23°C		Pass
• MIL-H-5606 Hydraulic Oil at 23°C		Pass

⁽¹⁾According to TE doc 411-121002

⁽²⁾Slight unwrapping/unflagging of the label after 5 immersions

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Ordering Information



Product description	Product order code	Label width mm (inch)	Label height mm (inch)	Quantity per roll	Color
PVF-101635-2.5-9	E04175-000	101.6 (4.00)	63.5 (2.50)	2,500	White
PVF-127127-10-9	C73760-000	12.7 (0.50)	12.7 (0.50)	10,000	White
PVF-165051-25-9	C51397-000	16.5 (0.65)	5.08 (0.20)	25,000	White
PVF-165102-10-9	E28305-000	16.5 (0.65)	10.2 (0.40)	10,000	White
PVF-191114-15-9	D47336-000	19.1 (0.75)	11.4 (0.45)	15,000	White
PVF-229064-10-9	D68223-000	22.9 (0.90)	6.3 (0.25)	10,000	White
PVF-254045-10-9	A41193-000	25.4 (1.00)	4.5 (0.18)	10,000	White
PVF-254127-10-4	F87981-000	25.4 (1.00)	12.7 (0.50)	10,000	Yellow
PVF-254127-10-9	A03632-000	25.4 (1.00)	12.7 (0.50)	10,000	White
PVF-318097-10-9	A71181-000	31.8 (1.25)	9.7 (0.38)	10,000	White
PVF-381191-5-4	F61438-000	38.1 (1.50)	19.05 (0.75)	5,000	Yellow
PVF-381191-5-9	C58188-000	38.1 (1.50)	19.05 (0.75)	5,000	White
PVF-508152-5-9	CA5836-000	50.8 (2.00)	15.2 (0.60)	5,000	White
PVF-508254-5-9	A37983-000	50.8 (2.00)	25.4 (1.00)	5,000	White
PVF-699254-5-9	D81431-000	69.85 (2.75)	25.4 (1.00)	5,000	White
PVF-762127-1-4	CA1707-000	76.2 (3.00)	127 (5.00)	1,000	Yellow
PVF-762381-2.5-9	C57257-000	76.2 (3.00)	38.1 (1.50)	2,500	White
PVF-762508-2.5-9	F28486-000	76.2 (3.00)	50.8 (2.00)	2,500	White

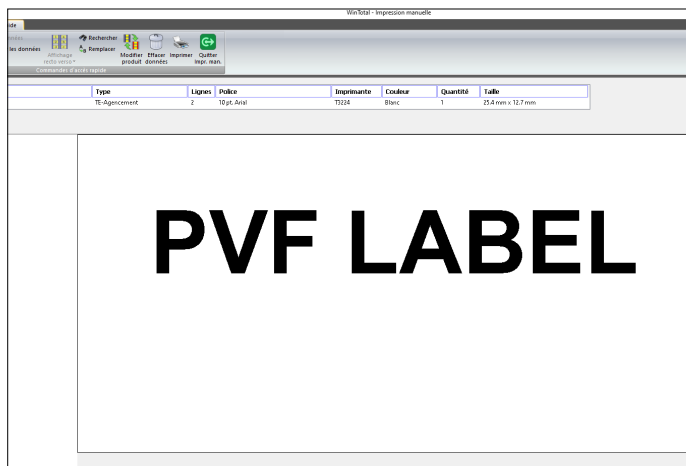


Printer information

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':

https://www.te.com/commerce/DocumentDelivery/DDEController?Action=showdoc&DocId=Specification+Or+Standard%7F411-121005%7F32%7Fpdf%7FEnglish%7FENG_SS_411-121005_32.pdf%7F557721-000vvvvvvv



Software

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

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

Contact a TE representative for further information.



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