

TTVF / DMVF Tedlar™

Tedlar™ labels

Technical Datasheet

TTDS-005 Revision 8

October 2024

TTVF is a colored thermal transfer printable polyvinyl fluoride label for use as a wire bundle or cable wrap-around marker, particularly for color coding and bundling/fixing applications in harness production. It is available on continuous rolls or die-cut labels.

DMVF is design for dot-matrix printing¹.

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

TTVF and DMVF are ideal in a variety of harsh physical and chemical environments, especially aerospace and military applications where self-extinguishing properties are a necessity.

¹TE does not have a recommended dot-matrix printer or ribbon, any dot-matrix printing needs to be verified by the user to validate performance.



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Features

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

Applications

- Aerospace and Defense
- Industrial
- Electrical
- Electronics

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>

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

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.



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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		
Test surface:		
• Stainless steel • Backing	ASTM D1000 (180°)	17.52 (63.94)
		15.23 (55.60)
Peel force (N/25mm (oz/in.))		
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 • High temperature exposure	No cracking, no loosening, no splitting. No separation of flag or unrolling	Pass
		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

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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 Lubricating 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

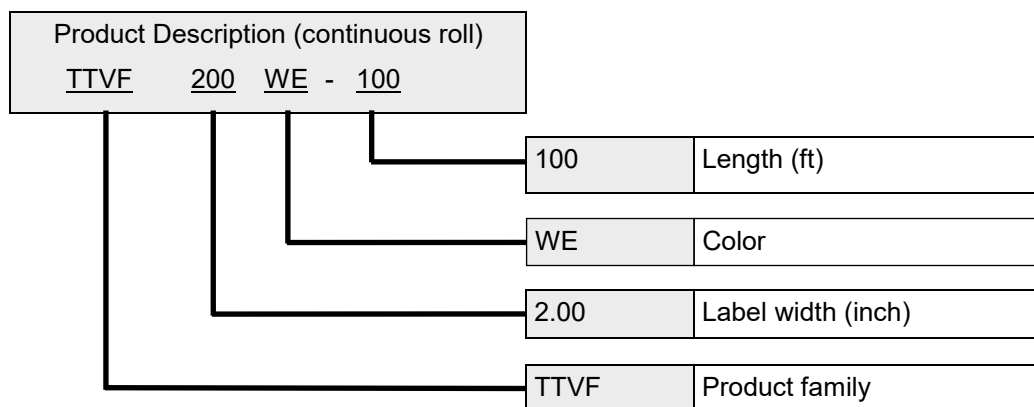
⁽²⁾Slight unwrapping/unflagging of the label after 5 immersions

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TTVF Ordering Information

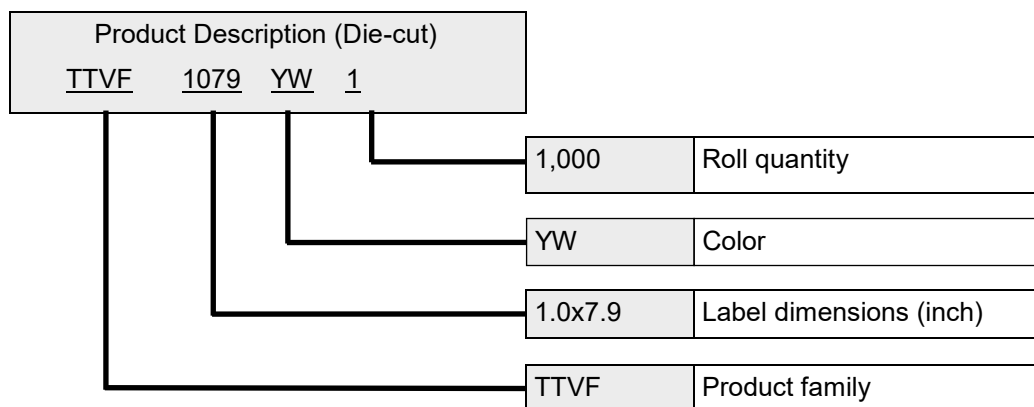


Product description	Product order code	Label width inch (mm)	Length ft (m)	Color
TTVF038WE-216	CT89443001	0.38 (9.65)	216 (65.83)	White
TTVF050BE-180	CS8080-000	0.50 (12.70)	180 (54.86)	Blue
TTVF050GN-180	CJ9410-000	0.50 (12.70)	180 (54.86)	Green
TTVF050GY-100	9-1768389-2	0.50 (12.70)	100 (30.48)	Grey
TTVF050PK-180	CS8081-000	0.50 (12.70)	180 (54.86)	Pink
TTVF050RD-100	9-1768389-1	0.50 (12.70)	100 (30.48)	Red
TTVF050RD-180	CS8079-000	0.50 (12.70)	180 (54.86)	Red
TTVF050VT-180	CN7381-000	0.50 (12.70)	180 (54.86)	Violet
TTVF050WE-180	D12463-000	0.50 (12.70)	180 (54.86)	White
TTVF050YW-100	C72426-000	0.50 (12.70)	100 (30.48)	Yellow
TTVF075BE-100	639510-000	0.75 (19.05)	100 (30.48)	Blue
TTVF075GN-100	010542-000	0.75 (19.05)	100 (30.48)	Green
TTVF075RD-100	635136-000	0.75 (19.05)	100 (30.48)	Red
TTVF075VT-100	472718-000	0.75 (19.05)	100 (30.48)	Violet
TTVF075WE-100	E18496-000	0.75 (19.05)	100 (30.48)	White
TTVF075YW-100	318606-000	0.75 (19.05)	100 (30.48)	Yellow
TTVF100BE-100	C34204-000	1.00 (25.40)	180 (54.86)	Blue
TTVF100GN-100	E95797-000	1.00 (25.40)	100 (30.48)	Green
TTVF100PK-100	C55005-000	1.00 (25.40)	100 (30.48)	Pink
TTVF100RD-100	104438-000	1.00 (25.40)	100 (30.48)	Red
TTVF100VT-100	C25528-000	1.00 (25.40)	100 (30.48)	Violet
TTVF100WE-100	160892-000	1.00 (25.40)	100 (30.48)	White
TTVF100YW-100	815438-000	1.00 (25.40)	100 (30.48)	Yellow

TTVF Ordering Information (suite)

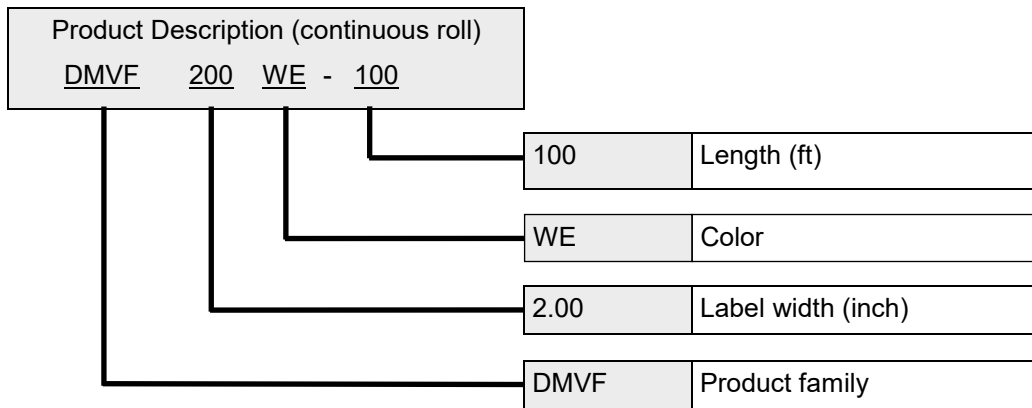
Product description	Product order code	Label width inch (mm)	Length ft (m)	Color
TTVF125RD-100	2388725-1	1.25 (31.75)	100 (30.48)	Red
TTVF125YW-100	C52437-000	1.25 (31.75)	100 (30.48)	Yellow
TTVF150BE-100	171284-000	1.50 (38.10)	100 (30.48)	Blue
TTVF150GN-100	871740-000	1.50 (38.10)	100 (30.48)	Green
TTVF150GY-100	H10819-000	1.50 (38.10)	100 (30.48)	Grey
TTVF150OE-100	C30863-000	1.50 (38.10)	100 (30.48)	Orange
TTVF150PK-100	C43670-000	1.50 (38.10)	100 (30.48)	Pink
TTVF150RD-100	575834-000	1.50 (38.10)	100 (30.48)	Red
TTVF150VT-100	E32547-000	1.50 (38.10)	100 (30.48)	Violet
TTVF150WE-100	335276-000	1.50 (38.10)	100 (30.48)	White
TTVF150YW-100	412200-000	1.50 (38.10)	100 (30.48)	Yellow
TTVF200BE-100	F44518-000	2.00 (50.80)	100 (30.48)	Blue
TTVF200BK-100	D10167-000	2.00 (50.80)	100 (30.48)	Black
TTVF200GN-100	A23981-000	2.00 (50.80)	100 (30.48)	Green
TTVF200PK-100	1878441-5	2.00 (50.80)	100 (30.48)	Pink
TTVF200RD-100	D18310-000	2.00 (50.80)	100 (30.48)	Red
TTVF200VT-100	D67572-000	2.00 (50.80)	100 (30.48)	Violet
TTVF200WE-100	192868-000	2.00 (50.80)	100 (30.48)	White
TTVF200YW-100	097370-000	2.00 (50.80)	100 (30.48)	Yellow
TTVF300BE-100	CL5794-000	3.00 (76.20)	100 (30.48)	Blue
TTVF300RD-100	149620-000	3.00 (76.20)	100 (30.48)	Red
TTVF300WE-100	741048-000	3.00 (76.20)	100 (30.48)	white
TTVF300YW-100	018298-000	3.00 (76.20)	100 (30.48)	Yellow
TTVF400WE-100	096394-000	4.00 (101.60)	100 (30.48)	White
TTVF400YW-100	985382-000	4.00 (101.60)	100 (30.48)	Yellow

TTVF Ordering Information



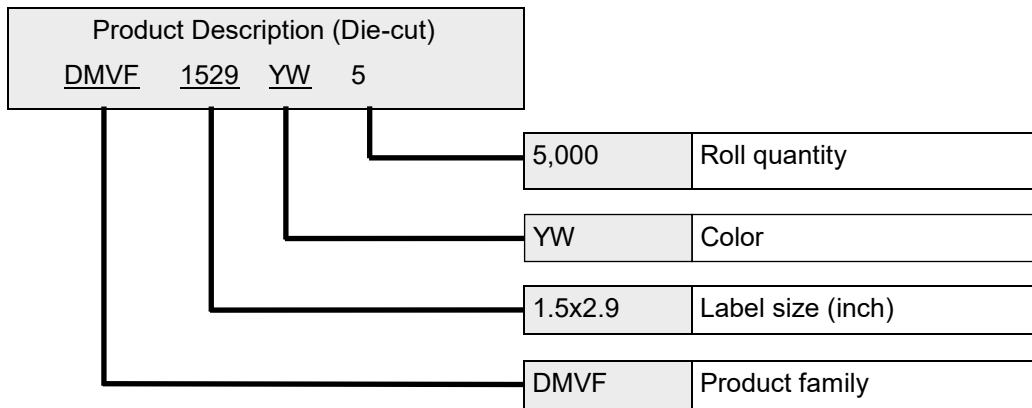
Product description	Product order code	Label width inch (mm)	Label height inch (mm)	Quantity per roll	Color
TTVF065020WE10	F86631-000	0.65 (16.51)	0.20 (5.08)	10,000	White
TTVF075025WE10	940010-000	0.75 (19.05)	0.25 (6.35)	10,000	White
TTVF1079RD1	F51999-000	1.00 (25.40)	7.90 (200.66)	1,000	Red
TTVF1079YW1	CN8604-000	1.00 (25.40)	7.90 (200.66)	1,000	Yellow
TTVF150075YW5	CS6447-000	1.50 (38.10)	0.75 (19.05)	5,000	Yellow
TTVF1529GY2.5	6-1768388-9	1.50 (38.10)	2.90 (73.66)	2,500	Grey
TTVF1529WE2.5	D46169-000	1.50 (38.10)	2.90 (73.66)	2,500	White
TTVF1529YW2.5	CN3653-000	1.50 (38.10)	2.90 (73.66)	2,500	Yellow
TTVF1679BE1	CN3654-000	1.60 (40.64)	7.90 (200.66)	1,000	Blue
TTVF1679YW1	CN3657-000	1.60 (40.64)	7.90 (200.66)	1,000	Yellow
TTVF6004BE2.5	CN3658-000	6.00 (152.40)	0.40 (10.16)	2,500	Blue
TTVF6004GN2.5	CN3659-000	6.00 (152.40)	0.40 (10.16)	2,500	Green
TTVF6004PK2.5	CN3660-000	6.00 (152.40)	0.40 (10.16)	2,500	Pink
TTVF6004RD2.5	CN3661-000	6.00 (152.40)	0.40 (10.16)	2,500	Red
TTVF6004VT2.5	CN3662-000	6.00 (152.40)	0.40 (10.16)	2,500	Violet
TTVF6004WE2.5	CN3663-000	6.00 (152.40)	0.40 (10.16)	2,500	White
TTVF6004YW2.5	CN3664-000	6.00 (152.40)	0.40 (10.16)	2,500	Yellow

DMVF Ordering Information



Product description	Product order code	Label width inch (mm)	Length ft (m)	Color
DMVF050PK-180	CP1642-000	0.50 (12.70)	180 (54.86)	Pink
DMVF050WE-100	105034-000	0.50 (12.70)	100 (30.48)	White
DMVF050WE-180	154772-000	0.50 (12.70)	180 (54.86)	White
DMVF050YW-180	932138-000	0.50 (12.70)	180 (54.86)	Yellow
DMVF100PK-100	2322817-1	1.00 (25.40)	100 (30.48)	Pink
DMVF100WE-100	232672-000	1.00 (25.40)	100 (30.48)	White
DMVF100YW-100	383836-000	1.00 (25.40)	100 (30.48)	Yellow
DMVF125YW-100	A26667-000	1.25 (31.75)	100 (30.48)	Yellow
DMVF150YW-100	157150-000	1.50 (38.10)	100 (30.48)	Yellow
DMVF200WE-100	398294-000	2.00 (50.80)	100 (30.48)	White
DMVF200YW-100	480090-000	2.00 (50.80)	100 (30.48)	Yellow

DMVF Ordering Information



Product description	Product order code	Label width inch (mm)	Label height inch (mm)	Quantity per roll	Color
DMVF1529YW5	C47614-000	1.50 (38.10)	2.90 (73.66)	5,000	Yellow
DMVF3509WE2.5	CN3647-000	3.50 (88.90)	0.90 (22.86)	2,500	White
DMVF6004BE2.5	CN3648-000	6.00 (152.40)	0.40 (10.16)	2,500	Blue
DMVF6004GN2.5	CV1883-000	6.00 (152.40)	0.40 (10.16)	2,500	Green
DMVF6004PK2.5	CN3649-000	6.00 (152.40)	0.40 (10.16)	2,500	Pink
DMVF6004RD2.5	CN3650-000	6.00 (152.40)	0.40 (10.16)	2,500	Red
DMVF6004VT2.5	CN3651-000	6.00 (152.40)	0.40 (10.16)	2,500	Violet
DMVF6004YW2.5	CN3652-000	6.00 (152.40)	0.40 (10.16)	2,500	Yellow

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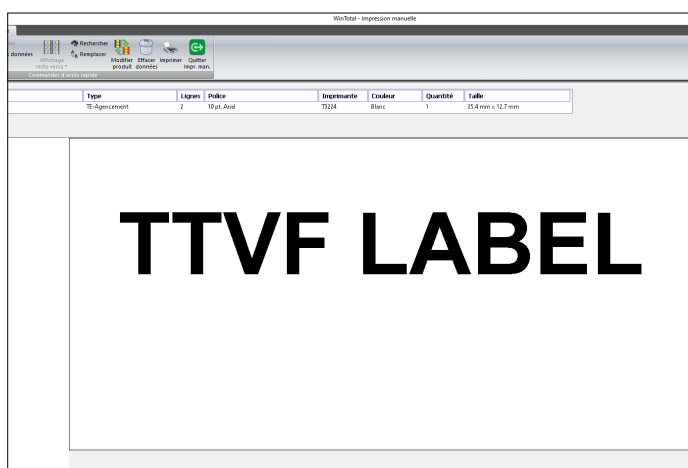


Printer information

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%7F557721-000vvvvvv



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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