







Technical Datasheet

TTDS-249 Revision 3 – June 2023

Q-Cee Labels are a selection of popular pre-printed labels used in Inspection, Calibration, Inventory and Maintenance tasks. These kits are a selection of labels aimed at the relevant operator or worker for their daily use.

These labels are a permanent label however they can be removed cleanly after use if required. The labels are all made from a vinyl base material for tough performance. Labels are supplied as individual sheets in the handy pocket sized kits as shown above.

Some of the labels are designed with a write-on surface. This allows the user to add additional information e.g. date of test, operator I.D. etc. TE recommends use of a high performance, permanent marker pen with these labels.

The kits come in a handy pocket size convenient booklet design with a cover to protect the labels inside. The booklet is designed to be easily stored or hung above the workshop bench.



Features

- · Permanent adhesive but removable
- · Tough vinyl base material
- Writable surface
- No adhesive residue on removal
- · Variety of label designs in the kit

Temperature Rating

- Operating Temperature Range
 -40 to 80°C (-40°F to 176°F)
- Minimum Application Temperature 10°C (50°F)

Applications

- Ideal for identification of maintenance, calibration, stock control and inspection work.
- Industrial, Automotive, Rail, Electrical, Laboratory and Warehouse.

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

 $\ensuremath{\mathbf{2}}$ 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 be stored at approximately 21°C and 50% relative humidity.





Typical Label Thickness

• Label (including adhesive): 0.120 mm / 0.005 inch

• Liner: 0.188 mm / 0.007 inch

Technical Performance

5% Salt solution

Detergent (1% solution)

Print Permanence

Marking of Electrical Insulating Materials, SAE AS 4952	Legible after 100 rubs 1kg weight with an eraser	Pass		
Resistance to Solvents, MIL STD 202 Method 215	Legible after 30 wipes	Pass		
Fluid Exposure		Adhesive/color	Printed legend	
Isopropyl alcoholIRM 902 reference oil	Labels to remain on test plate, legi- ble (TE doc 109-121012) and no change in pre-printed color	Pass Pass Pass	Pass Pass Pass	
GreaseEngine OilDiesel FuelTap water	Samples stuck to Aluminium plates. 24 hours immersion in fluid @ 23°C followed by 20 rubs, SAE AS5942	Pass Pass Pass	Pass Pass Pass	

Requirement

Results

Pass

Pass

Pass

Pass

Adhesion to FTM1 (180°)			Typical Peel force	Typical Peel force (N/25mm (oz/in.))		
Test	surface:	FTM1 (180°)	20min Dwell	72hr Dwell		
•	Stainless steel		20 (73)	22 (80)		
•	Glass		27 (97)	28 (101)		
•	Aluminium		25 (90)	29 (105)		
	Polypropylene		2.0 (7.5)	2.0 (7.5)		
	Polypropylene		34 (126)	32 (116)		
•	Epoxy painted surface					

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Artificial weathering to ASTM G154 Labels to remain on plate, no discol- Pass, samples remain legible and no discolaration and legible after 240hr, UV- coloration

Thermal performance

Heat Aging

Labels to remain on plate, no discoloration and legible after 168hr at to test plate

100±2°C

Labels to remain on plate, no discolPass, samples remain legible and adhered
to test plate

Thermal Cycling

Labels to remain on plate, no discoloration and legible after 10 cycles of 1hr @ -50°C then 1hr @ 90°C followed by 100rubs

Note: write-on print performance is dependent on pen used.

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.



Kit Label Details

	Part Description	Packing			Label Quantity	Label dimensions (w /h)	
Part No.		No. of labels per Kit	No. of labels per pack (10 Kits per bag)	Label Image	& description	mm	in
2404300-1 INVENTORY-LABEL -BK-225		- 225	2250	INVENTORY NO DATE COUNT BY	105x "INVENTORY"	- 50.8 x 12.7	2.0 x 0.5
	INVENTORY-LABEL			SHELF LIFE OF AT EXPIRES	60x "SHELF LIFE"		
	-BN-223			SCRAP BYDATE	30x "SCRAP"		
				FOR REFERENCE ONLY	30x "FOR REFER- ENCE ONLY"		
2404400-1 INSPECTION- LABEL-BK-222		222	2220	INSPECTED OK BYDATE	108x "INSPECTED OK"	50.8 x 19.1	2.0 x 0.75
				REJECTED BY DATE	60x "REJECTED"	50.8 x 12.7	2.0 x 0.5
				HOLD FOR INSPECTION BY DATE	54x "HOLD FOR INSPECTION"	50.8 x 19.1	2.0 x 0.75
2404500-1	CALIBATION- LABEL-BK-247	247	2470	CALIBRATION 1.D. No. By Date Due	84x "CALIBRATION"	50.8 x 15.9	2.0 x 0.625
				DATE DUE BY	108x "CAL."	Ø 15.9	Ø 0.625
				OUT OF CALIB DO NOT USE	55x "OUT OF CALLIB. DO NOT USE"	Ø 12.7	Ø 0.5

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Part No.	Part Description	Packing				Label dimensions (w /h)	
		No. of labels per Kit	No. of labels per pack (10 Kits per bag)	Label Image	Label Quantity & description	mm	in
1 2 3 8 8 6 0 0 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			2820	TESTED DATE BY	150x "TESTED"	50.8 x 12.7	2.0 x 0.5
	MAINTENANCE-	282		PREVENTIVE MAINTENANCE DONE BY DATE NEXT MAINT. DUE	72x "PREVENTATIVE MAINTENANCE	50.8 x 15.9	2.0 x 0.625
	LABEL-BK-282	202		OUT OF SERVICE	30x "OUT OF SERVICE"	50.8 x 12.7	2.0 x 0.5
				DEFECTIVE DO NOT USE	30x "DEFECTIVE DO NOT USE"	50.8 x 12.7	2.0 x 0.5



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