CALIBRATION D. No Date Due	CALIBRATION DATE DUE THIS ITEM LAST CALIBRATED DATEBY
CALIBRATION I.D. NO. BY DATE DUE	LIMITED CALIBRATION TESTED RANGE TO BY DATE IDFDUE

Permanent Q-Cee's labels Type QCC

Technical Datasheet

TTDS-253 Revision 1 April 2023

QCC labels are designed for use on gages and instruments that are subjected to constant handling, cutting oils, or chemicals.

The labels are all made from a high quality flexible vinyl base material for tough performance. They are backed with a strong permanent acrylic adhesive. The construction allows use in many applications.

These labels are designed with a writable surface. This allows the user to add additional information e.g. date of test, operator I.D. etc.

After writing information, the label can easily be covered by a self-laminating polyester film that protects the data from tampering, weathering, staining, chemicals and abrasion.

TE recommends to use a high performance, permanent market pen with these labels. Labels are supplied as individual sheets.



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Features

- Permanent adhesive
- Writable surface
- Self-laminating clear film to protect data from abrasion, cutting oil and chemicals
- Available in multiple colors
- Flat or slightly curved surfaces

Applications

- Ideal for identification of maintenance or calibration.
- Industrial, Automotive, Rail, Electrical, Laboratory and Warehouse.

Temperature rating

- Operation Temperature Range: -40°C to +110°C (-40°F to +230°F)
- Minimum Application Temperature: 10°C (50°F)

Design for Environment

- Does not contain any RoHS (EU 2015/863) 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:
- <u>http://www.te.com/usa-en/utilities/product-</u> <u>compliance.html</u>

Shelf life

• Two 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.

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 and overlam) : 0.175 mm / 0.0069 inch
- Liner: 0.140 mm / 0.0055 inch

Technical performance

	Requirements	Results
Print Permanence		
Marking of Electrical Insulating Mate- rials, SAE AS 5942	Legible after 100 rubs 1kg weight with an eraser	Pass
Resistance to solvents, MIL STD 202 Method 215	Legible after 30 wipes	Pass

Fluid	l Exposure ⁽¹⁾		Adhesive/color	Printed legend
•	Isopropyl alcohol	Labels to remain on test plate, legible (TE doc 109-121012) and no change in pre-printed color	Pass	Pass
•	IRM 902 reference oil		Pass	Pass
•	Grease		Pass	Pass
•	Engine Oil		Pass	Pass
•	Diesel Fuel	Samples stuck to Aluminium	Pass	Pass
•	Tap water	plates. 24 hours immersion in fluid	Pass	Pass
•	5% Salt solution	at 23°C followed by 20 rubs, SAE	Pass	Pass
•	Detergent (1% solution)	AS5942	Pass	Pass

Adhesion to FTM1 (180°)

Typical Peel force (N/25mm (oz/in.))

Test surface:			20min Dwell	72hr Dwell
•	Stainless steel	FTM1 (180°)	11 (40)	12 (42)
•	Glass		15 (54)	20 (73)
•	Aluminium		12 (42)	15 (54)
•	Polypropylene		8 (31)	10 (38)
•	Epoxy painted surface		12 (42)	34 (124)

Weatherability

Artificial weathering to ASTM G154	Labels to remain on plate, no dis- coloration and legible after 240hr, UV-A and no discoloration	Pass, samples remain legible and no discoloration
Thermal performance		
Heat Aging ⁽¹⁾	Labels to remain on plate, no dis- coloration and legible after 168hr at 100±2°C	Pass, samples remain legible and no damage to label
Thermal Cycling	Labels to remain on plate, no dis- coloration and legible after 10 cycles of 1hr at -50°C then 1hr at 90°C followed by 100 rubs	Pass, samples remain legible and no damage to label

⁽¹⁾ Write-on print performance is dependent on the pen used, some ink diffusion observed with fiber pen.

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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Ordering information



	Product description	Product or- der code	Label width (mm)	Label height (mm)	Labels per sheet	Sheets per bag	Color	Design ⁽¹⁾
	QCC306BK	1878660-7	44.5	15.9	16	9	Black	
	QCC306BU	1878660-9	44.5	15.9	16	9	Blue	
	QCC306GR	1878661-1	44.5	15.9	16	9	Green	CALIBRATION
306	QCC306OR	1878661-6	44.5	15.9	16	9	Orange	
	QCC306RD	1878661-8	44.5	15.9	16	9	Red	
	QCC306YL	1878662-2	44.5	15.9	16	9	Yellow	
	QCC311BK	1878662-4	25.4	15.9	24	6	Black	
	QCC311BR	1878662-5	25.4	15.9	24	6	Brown	
244	QCC311BU	1878662-6	25.4	15.9	24	6	Blue	
311	QCC311GR	1878662-7	25.4	15.9	24	6	Green	
	QCC3110R	1878663-3	25.4	15.9	24	6	Orange	
	QCC311RD	1878663-5	25.4	15.9	24	6	Red	
330	QCC330	1878663-9	76.2	25.4	6	18	Green	CALIBRATION
LIM	QCCLIM	1-1878826-3	44.5	15.9	16	9	Orange	LIMITED CALIBRATION
359	QCC359	1878664-7	15.9	Dia.	40	5	Black and white	

⁽¹⁾ Images not to scale.

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Writing information

Writing quality and performance can only be guaranteed when specific TE pen ZUB-01 is used.

PN 1-1768050-0



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