Tyco Electronics
Our commitment. Your advantage.

TECHNICAL DATA SHEET

www.tycoidento.com

T1K Labels

Document number: TTDS-034
Issue: 4
Date: February 2007

#Top of the Document

MATERIAL DESCRIPTION:	Tyco Electronics "T1K" is a thermal transfer printable, 1mil thick (low profile) white polyimide label with a permanent acrylic adhesive
USE:	Ideal for high temperature labeling requirements such as printed circuit boards. Suitable for Direct Wave (bottom side) and IR Reflow (top side) PCB applications. Designed to withstand the fluxes, cleaning solvents and molten solder encountered in the manufacture of printed circuit boards. Excellent contrast for bar code applications. With a flash exposure service temperature of 315°C (599°F), "T1K" is suitable for the harshest high temperature applications. For optimum print performance and durability, use with Tyco Electronics RHT-45 series ribbon.
PRINT METHOD/RIBBON:	Preferred Printer/Ribbon combination: Thermal transfer: T312M-PRINTER, Tyco Electronics 1330-0619-10 Ribbon Alternative Printer/Ribbon combinations: Thermal transfer: T308S-PRINTER, Tyco Electronics 1330-0619-10 Ribbon Thermal transfer: T312S-PRINTER, Tyco Electronics 1330-0619-10 Ribbon Thermal transfer: T400 Series, Tyco Electronics 1330-0619-00 Ribbon
SHELF LIFE:	1 year when stored at 21°C (70°F) at 50% R.H.
ADHESIVE:	Permanent high-temperature pressure sensitive acrylic adhesive.
COLOR:	Gloss white coating on amber material.
APPROXIMATE TOTAL THICKNESS:	Substrate: Typically, 0.038mm (0.0015 inches). Adhesive: Typically, 0.025mm (0.0010 inches).
SERVICE TEMPERATURE:	50 minutes: 315°C (599°F) 2 Hours: 220°C (428°F) 1000 Hours: 120°C (248°F)
MINIMUM APPLICATION TEMPERATURE:	10°C (50°F)
ADHESION:	ASTM-D-3330 (180° peel direction) at 21° C (70°F): PCB (G-10): Typically, 19.9 oz/inch (0.218 N/mm) - 1 min dwell Stainless steel: Typically, 25.5 oz/inch (0.28 N/mm) - 20 min dwell Typically, 31.3 oz/inch (0.343 N/mm) - 72 hr dwell
TACK:	25oz (710g): ASTM D2979 at 21° C (70°F, 1 second dwell).
FLAMMABILITY:	Oxygen Index, 36% minimum: BS ISO 4589-2 [1999].

ABRASION RESISTANCE: Printing remains legible for 50 revolutions of CS-10 wheel, 500g load (Taber-Abraser Model 5130). Print not affected with repeated Rub testing as per AS-81531

CHEMICAL SOAK RESISTANCE: Results after soaking for 5 minutes:

Fluid	Result
Alpha Flux: 2110 (23°C)	No effect on print contrast
870-25 (70°C)	No effect on print contrast
615 (23°C)	No effect on print contrast
Alpha S30 cleaner (23°C)	No effect on print contrast

PRINT PERMANENCE: Meets the requirements of MIL-STD-202 method 215J.

Good resistance to fluids and repeated cleaning:

SOLVENT	TEST	EFFECT
Detergent mix	Repeated cleaning (200 cycles Crockmeter)	No visual effect
IPA	Repeated cleaning (100 cycles Crockmeter)	No visual effect
IPA (70%)	7 day immersion	No visual effect
IPA (70%)	Repeated cleaning (200 cycles Crockmeter)	No visual effect
Water	7 day immersion	No visual effect
Water at 95°C (203°F)	Typical PCB wash cycle	No visual effect
Toluene	30 second soak only	No visual effect

AGENCY APPROVALS: Underwriters Laboratories Inc: UL File No. MH17292 Vol. 1.

This listing is based on label materials and ribbons taken together as a system, using any suitable thermal transfer printer.

Listed system components: Label material: T1K.
Thermal transfer ribbon: Tyco Electronics RHT-35.