Technical Properties of Enamelled Copper Wire — Tycan Australia Pty. Ltd

	COPPER						ALUMINIUM
PROPERTIES	**ROUND WIRE**					**RECTANGULAR**	**ROUND**
ENAMEL TYPES	**TYCAN PUR**	**TYCAN PES**	**TYCAN PEI**	**TYCAN PEI-AI**	**TYCAN PE-AI**	**TYCAN PEI**	**TYCAN PVF**
CHARACTERISTICS	Solderable	Solderable	High Temperature	Very High Thermal	Very High Thermal	High Temperature	Suitable for flattening
THERMAL CLASS	B-130	F-155	H-180	H-200	C-220	H-180	A-105
BASE COAT	Polyurethane	Modified Polyurethane	THEIC Modified Polyester-imide	THEIC Modified Polyester-imide	THEIC Modified Polyester	THEIC Modified Polyester-imide	Polyvinyl Formal
OVER COAT	-	-	-	Polyamide-imide	Polyamide-imide	-	-
TEMPERATURE INDEX 20,000 HOURS	151°C	163°C	223°C	223°C	223°C	220°C	120°C
INTERSECTION POINT TAN DELTA	123°C	147°C	200°C	200°C	240°C	200°C	
HEAT SHOCK (2xd, 30 min.)	160°C	180°C	220°C	250°C	250°C	220°C	160°C
CUT-THROUGH	215°C	230°C	360°C	360°C	400°C	350°C	170°C
BREAKDOWN VOLTAGE	180 V/um	180 V/um	180 V/um	180 V/um	180 V/um	150 V/um	180 V/um
FLEXIBILITY & ADHESION (1xd)	20%	20%	20%	15%	15%	15%	2xd with 1% pre-stretch
UNDIRECTIONAL ABRASION	19 gr/um	21 gr/um	18 gr/um	22 gr/um	22 gr/um	18 gr/um	18 gr/um
RESISTANCE TO SOLVENTS	3H	4H	4H	6H	6H	3H	3H
RESISTANCE TO REFRIGERANT R22	-	-	Good	Excellent	Excellent	Good	-
RESISTANCE TO TRANSFORMER OIL	-	-	Very Good	Excellent	Excellent	Very Good	Excellent
RESISTANCE TO STYRENE	-	-	Fair	Excellent	Excellent	Fair	-
RESISTANCE TO HUMIDITY	-	Good	Good	Excellent	Excellent	Very Good	Good
SOLDERABILITY	375°C	375°C	-	-	-	-	-
HEAT BONDING	-	-	-	-	-	-	-
DIAMETER RANGE	0.4-1.4 mm	0.4-1.4 mm	0.4-4.50 mm	0.28-3.15 mm	0.28-3.15 mm	-	1.00 - 4.00mm
MAIN APPLICATION AREAS	Small Motors, Relays, Measuring Instruments, Solenoids	Small Motors, Relays, Measuring Instruments, Solenoids	Motors, Transformers, Ballasts Chokes	High Temp Motors Ballasts Chokes	High Temp Motors Ballasts Chokes	Special Motors Transformers	Oil filled Transformers, with flattening for improved space factors

The above data is based on our current enamels and manufacturing conditions. It is provided as an indication only and is subject to change without notice.