

# FLEX NORYL™ RESIN WCA871A

REGION ASIA

## DESCRIPTION

Flame retardant performance and mechanical properties capable of meeting UL VW-1 requirement and 105C temperature rating as defined UL1581. UL1581 tests conducted on 1.0mmD wire with AWG28 conductor.

## TYPICAL PROPERTY VALUES

Revision 20180905

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, brk, Type I, 50 mm/min	18	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	140	%	ASTM D 638
Flexural Modulus, 12.5 mm/min, 100 mm span	100	MPa	ASTM D 790
Hardness, Shore A, 30S reading	87	-	ASTM D 2240
Tensile Stress, break, 50 mm/min	18	MPa	ISO 527
Tensile Strain, break, 50 mm/min	130	%	ISO 527
Flexural Modulus, 12.5 mm/min	100	MPa	ISO 178
<b>IMPACT</b>			
Brittleness Temperature	-40	°C	ASTM D 746
<b>PHYSICAL</b>			
Specific Gravity	1.06	-	ASTM D 792
Melt Flow Rate, 250°C/5.0 kgf	15	g/10 min	ASTM D 1238
<b>ELECTRICAL</b>			
Volume Resistivity	2.4E+16	Ohm-cm	ASTM D 257
Dielectric Strength in oil, 1.5mm	28	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	2.6	-	IEC 60250
Dissipation Factor, 1 MHz	0.0028	-	IEC 60250
Comparative Tracking Index	600	V	IEC 60112
<b>FLAME CHARACTERISTICS</b>			
Smoke Density on 0.5mm plaque, Non-flame, Ds, max	67	-	ASTM E 662
Smoke Density on 0.5mm plaque, Flame, Ds, max	143	-	ASTM E 662
Glow Wire Flammability Index 960°C, passes at	3	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 3.0 mm	825	°C	IEC 60695-2-13
Oxygen Index (LOI)	28	%	ISO 4589
<b>WIRE AND CABLE - UL 1581 TESTED ON 2.0MM WIRE WITH 0.12MMX20 STRANDED COPPER</b>			
Tensile strength @ break	30	MPa	UL 1581
Tensile elongation @ break	280	%	UL 1581
Tensile strength @ break after 7days @136°C	27	MPa	UL 1581
Tensile elongation @ break after 7days @136°C	200	%	UL 1581
UL temperature rating	105	°C	UL 1581
Heat Deformation at 121°C/250g	20	%	UL 1581



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