FLEX NORYL™ RESIN WCA871A

REGION ASIA

DESCRIPTION

FLEX NORYL™ WCA871A resin is a flexible, non-reinforced extrudable blend of Polyphenylene Ether (PPE) + Thermoplastic Elastomer (TPE). This material contains non-halogenated flame retardant and performance capable of meeting UL VW-1 requirements, 105C end use temperature rating, and heat deformation performance as defined by UL 1581. FLEX NORYL WCA871A resin is intended for evaluation in wire insulation and cable jacket applications in light colors. It has a Shore A Hardness reading of 84 and exhibits superior thermal stability, very low water absorption, good electric properties, and low specific gravity. Processing is typically conducted on standard extrusion equipment, and UL 1581 testing is conducted on 2.0mm wire with 0.12mm X 20 stranded copper conductor.

TYPICAL PROPERTY VALUES

Revision 20190520

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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
IMPACT			
Brittleness Temperature	-40	°C	ASTM D 746
PHYSICAL			
Specific Gravity	1.06	-	ASTM D 792
Melt Flow Rate, 250°C/5.0 kgf	15	g/10 min	ASTM D 1238
ELECTRICAL			
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
FLAME CHARACTERISTICS			
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
WIRE AND CABLE - UL 1581 TESTED ON 2.0MM WIRE WITH 0.12MMX20 STRANDED COPPER			
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

© 2019 Copyright by SABIC. All rights reserved

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2019 Copyright by SABIC. All rights reserved