

Aquathene Moisture Crosslinkable Designs for Wire and Cable

Selection Guide



TABLE I: Aquathene - UL 44 Types for Building Wire, Power, Cable Tray, Service Entrance and Photovoltaic Cables

APPLICATIONS		Building, Service Entrance, Control, Cable Tray Use, Photovoltaic and Hook-up Wire	Low Voltage Building Wire, Service Entrance, Cable Tray Use, and Hook-up Wire							
DESCRIPTION		VW-1 flame retardant XLPE	Horizontal flame retardant XLPE			Non-flame retardant XLPE	Cable Tray Use XLPE		Abuse Resistant, Flame retardant XLPE	
Aquathene Moisture Cure System		U4753 AC ^[1,2]	U6430 AC ^[7]	U6432 AC ^[7]	U5832 BK ^[7]	U8659 BK ^[3]	U4945 AC	U4947 AC	U4425 AC	U4427 AC
COMPONENTS, %	AQ120000 Base Resin	47.0%	64.0%	62.5%	58.7%	88.7%	49.0%	47.5%	45.3%	43.8%
	CM04483 Catalyst MB ^[6,8]		5%	5%	5%	5%	5%	5%	3.7%	3.7%
	FR409800 FR MB		30%	30%	30%		45.0%	45.0%	25.0%	25.0%
	FR420000 FR-Cat MB	52.0%								
	Color Concentrate	1%	1%				1%		1%	
	UV Color Concentrate			2.5%				2.5%		2.5%
	PM92949C Black MB				6.3%	6.3%				
	Alternative Resin								25% LM6007 HDPE	25% LM6007 HDPE
SYSTEM DENSITY	g/cc	1.279	1.038	1.038	1.052	0.936	1.114	1.122	1.033	1.040
FEATURES / TYPES	UL 44 / UL 1581	XHH, XHHW, XHHW-2, RHH, RHW, RHW-2, SIS, VW-1, PRI, PR II, GRI, GR II, Sunlight Resistant (SR), cold bend and cold impact at -40°C	XHH, XHHW, XHHW-2, RHH, RHW, RHW-2, SIS, PRI, PR II, GRI, GR II, cold bend and cold impact at -40°C USE, USE-2	XHH, XHHW, XHHW-2, RHH, RHW, RHW-2, SIS, OPRI, PR II, GRI, GR II, SR, cold bend and cold impact at -40°C; USE, USE-2	XHH, XHHW, XHHW-2, RHH, RHW, RHW-2, SIS, PRI, PR II, GRI, GR II, SR, cold bend and cold impact at -40°C USE, USE-2	PRI, PR II, GRI, GR II, SR in Black Only, cold bend and cold impact at -40°C; USE, USE-2	XHH, XHHW, XHHW-2, RHH, RHW, RHW-2, SIS	XHH, XHHW, XHHW-2, RHH, RHW, RHW-2, SIS, SR	XHH, XHHW, XHHW-2, RHH, RHW, RHW-2, SIS	XHH, XHHW, XHHW-2, RHH, RHW, RHW-2-SIS, SR
	UL 1685 / IEEE 1202	4 AWG / 60 mil wall for FT4; 4 AWG and larger (including 1/0 AWG) for CT-Use ^[5] ; 1/0 AWG and larger for IEEE 1202					4/0 AWG and larger for CT Use	4/0 AWG and larger for CT Use		
	UL 4703	Suitable for PV applications up to 600, 1000, and 2000V								

TABLE II: Aquathene - CSA 22.2 Types for Building Wire, Power, and Service Entrance Cables

APPLICATIONS		Building Wire, Control and Tray Cable, Service Entrance and Hook-up Wire	Low Voltage Building Wire, Teck 90, Service Entrance and Hook-up Wire									
DESCRIPTION		VW-1 flame retardant XLPE	Horizontal flame retardant XLPE			Non-flame retardant XLPE			Abuse Resistant, Non-flame retardant XLPE		Abuse Resistant, Non-flame retardant XLPE	
Aquathene Moisture Cure System		U4753 AC	U6430 AC	U6432 AC	U5832 BK	U8659 BK ^[1]	8659 AC ^[2]	9505 NT ^[3]	4659 BK	4659 AC	5445 BK	5445 AC
COMPONENTS, %	AQ120000 Base Resin	47.0%	64.0%	62.5%	58.7%	88.7%	94.0%	95.0%	48.7%	54.0%	48.7%	54.0%
	CM04483 Catalyst MB ^[6,8]		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	FR409800 FR MB		30%	30%	30%							
	FR420000 FR-Cat MB	52.0%										
	Color Concentrate	1%	1%				1%			1%		1%
	UV Color Concentrate			2.5%								
	PM92949C Black MB				6.3%	6.3%			6.3%		6.3%	
	Alternative Resin								40% LM6007 HDPE	40% LM6007 HDPE	40% GA808091 LLDPE	40% GA808091 LLDPE
SYSTEM DENSITY	g/cc	1.279	1.038	1.038	1.052	0.936	0.927	0.924	0.95	0.942	0.934	0.926
FEATURES / TYPES	SR90, RW90, RWU90, XLPE, -40°C, FT1, FT2, VW-1	R90, RW90, RWU90, XLPE, -40°C, FT2, PR I, PR II, GR I, GR II	R90, RW90, RWU90, XLPE, -40°C, FT2, SR, PR I, PR II, GR I, GR II	R90, RW90, RWU90, XLPE, -40°C, PR I, PR II, GR I, GR II	R90, RW90, RWU90, RPV90, RPVU90, XLPE, -40°C, SR	R90, RW90, RWU90, XLPE, -40°C	R90, RW90, RWU90, XLPE, -40°C	R90, RW90, RWU90, XLPE, -40°C	R90, RW90, RWU90, XLPE, -40°C	R90, RW90, RWU90, XLPE, -40°C	R90, RW90, RWU90, XLPE, -40°C	R90, RW90, RWU90, XLPE, -40°C

[1] "U" prefix on system indicates "UL Listed".

[2] "AC" suffix on systems indicates approval for "All Colors".

[3] "BK" suffix on systems indicates approval in "Black Only".

[4] "NT" suffix on systems indicates approval in "Natural Only".

[5] CT-Use represents Cable Tray Use

[6] CM04482 Catalyst MB is included in certification.

[7] 30% FR4098 + 5% CM04483 may be replaced with 35% FR4398 for these systems.

[8] "MB" suffix on components list represents Masterbatch.

ABOUT US

LyondellBasell (NYSE: LYB) is one of the largest plastics, chemicals and refining companies in the world. Driven by its employees around the globe, LyondellBasell produces materials and products that are key to advancing solutions to modern challenges like enhancing food safety through lightweight and flexible packaging, protecting the purity of water supplies through stronger and more versatile pipes, improving the safety, comfort and fuel efficiency of many of the cars and trucks on the road, and ensuring the safe and effective functionality in electronics and appliances. LyondellBasell sells products into more than 100 countries and is the world's largest producer of polymer compounds and the largest licensor of polyolefin technologies. In 2018, LyondellBasell was named to Fortune magazine's list of the "World's Most Admired Companies." More information about LyondellBasell can be found at www.LyondellBasell.com.

For more information, visit lyb.com or please contact:

Europe

EU.Polymers@lyb.com

North America

NA.Polymers@lyb.com

South America

SA.Polymers@lyb.com

Africa, Middle East, India

AFMEI.Polymers@lyb.com

Asia

AP.Polymers@lyb.com

Australia/New Zealand

AU.Polymers@lyb.com

Before using a product sold by one of the LyondellBasell family of companies, users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally. SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) OTHER THAN AS SEPARATELY AGREED BETWEEN THE PARTIES IN WRITING. This product(s) may not be used in the manufacture of any US FDA Class III Medical Device or Health Canada Class IV Medical Device and may not be used in the manufacture of any US FDA Class II Medical Device or Health Canada Class II or Class III Medical Device without the prior written approval by Seller of each specific product or application.

Users should review the applicable Material Safety Data Sheet before handling the product.

Hostalen, *Lupolen*, *Lucalen* and *Luflexen* are trademarks owned or used by the LyondellBasell family of companies and are registered in the U.S. Patent and Trademark Office.

lyondellbasell
Advancing Possible