

AERODUCT

Ducting Accessories



The Most Comprehensive Range of Ducting Accessories



FLEXIBLE DUCT CONNECTOR

ASTM E - 84 Class 1
BS 476, Part 7 - Class 1
BS 476, Part 6 - Class 0



FLEXIBLE DUCT CONNECTOR

All mechanical equipments like Air Handling Units, Fan Coil Units and Ventilation Fans generate noise and vibrations when used. To eliminate the noise and vibrations from transmitting through the air ducts, it is necessary to install an airtight flexible joint between the outlet of the equipment, and the inlet of the ducts.

The joint formed by attaching a layer of fabric to two strips of metal on either side is called a "Flexible Duct Connector".

The most critical part of this Flexible Duct Connector is the fabric which has to be selected to suit the typical requirements of each installation.



Part No.	Size Metal x Fabric x Metal (mm)	Length (Feet)	Metal Gauge	Fabric Technical Specifications	Features
Vinyl					
V-G8-145-100	45 x 75 x 45	100	28	Basic Fabric : Polyester Yarn	Vinyl is the most commonly used fabric for all air duct installations due to its high tear strength, and its high abrasion resistance. Recommended for low to medium pressure ductwork systems. Airtight and waterproof construction. UV resistant. Achieves Class 1 when tested as per ASTM - E84 Surface Burning Characteristics
V-G8-230-100	70 x 100 x 70	100	28	Coating : Vinyl	
V-G8-145-150	45 x 75 x 45	150	28	Weight : 576 gms /sq.mtr	
V-G8-230-150	70 x 100 x 70	150	28	17oz /sq. yard	
V-G4-225-100	75 x 75 x 75	100	24	24gauge	
V-G4-250-100	75 x 100 x 75	100	24	745 gms /sq.mtr	
V-G4-300-100	75 x 150 x 75	100	24	22oz /sq. yard	
V-G4-350-100	100 x 150 x 100	100	24	Tear Strength : 45 x 45 kgs	
				Tensile Strength : 100 x 100 lbs	
				Low Temp : -40 deg C / -40 deg F	
Neoprene BS					
BSN-G8-145-100	45 x 75 x 45	100	28	Basic Fabric : Woven Fibreglass	Neoprene is recommended for use in application where high mechanical strength is required. Neoprene is extremely resistant to most alkalies, gasoline and toxic fumes. Airtight and waterproof construction. UV resistant. Achieves Class 1 when tested as per ASTM - E84 Surface Burning Characteristics Rated Class 1 as per BS 476, part 7 Flame Tests
BSN-G8-230-100	70 x 100 x 70	100	28	Coating : Neoprene	
BSN-G8-145-150	45 x 75 x 45	150	28	Weight : 1016 gms /sq.mtr	
BSN-G8-230-150	70 x 100 x 70	150	28	30 oz/sq. yard	
BSN-G4-225-100	75 x 75 x 75	100	24	Tear Strength : 5.5 x 5.5 kgs	
BSN-G4-250-100	75 x 100 x 75	100	24	12 x 12 lbs	
BSN-G4-300-100	75 x 150 x 75	100	24	Tensile Strength : 226 x 204 kgs	
BSN-G4-350-100	100 x 150 x 100	100	24	500 x 450 lbs	
				Low Temp : -40 deg C (-40 deg F)	
				High Temp : 121 deg C (250 deg F)	

Part No.	Size Metal x Fabric x Metal (mm)	Length (Feet)	Metal Gauge	Fabric Technical Specifications		Features
Silicon						
S-G8-145-100	45 x 75 x 45	100	28	Basic Fabric	: Woven Fibreglass	Silicon fabric has a special Silicon Rubber coating that has excellent resistance to high and low temperatures. Silicon is extremely resistant to chemicals and ozone, and emits very low smoke when burnt. Recommended for applications where high temperature is of main concern in both indoor and outdoor installations. Airtight and waterproof construction. UV resistant. Achieves Class 1 when tested as per ASTM - E84 Surface Burning Characteristics. Rated Class 1 as per BS 476, Part 7 tests.
S-G8-230-100	70 x 100 x 70	100	28	Coating	: Silicon Rubber	
S-G4-225-100	75 x 75 x 75	100	24	Weight	: 627 gms /sq.mtr	
S-G4-250-100	75 x 100 x 75	100	24		: 18.5 oz/sq. yard	
S-G4-300-100	75 x 150 x 75	100	24		: 895 gms /sq.mtr	
S-G4-350-100	100 x 150 x 100	100	24	Tear Strength	: 26 oz/sq. yard	
					: 27 x 22 kgs	
Rated for use at 400 deg C for 2 hours 				Tensile Strength	: 60 x 50 lbs	
					: 81 x 90 kgs	
					: 180 x 200 lbs	
					Low Temp	: -40 deg C (-40 deg F)
				High Temp	: 300 deg C (573 deg F)	
				Burst Strength	: 450psi	
Hypalon						
H-G8-145-100	45 x 75 x 45	100	28	Basic Fabric	: Woven Fibreglass	Hypalon coated fabric has the best resistance to ozone layer, and is the first choice for outdoor applications. It has excellent resistance to weathering, acids and is recommended for roof top applications. Airtight and waterproof construction. UV resistant. Achieves Class 1 when tested as per ASTM - E84 Surface Burning Characteristics.
H-G8-230-100	70 x 100 x 70	100	28	Coating	: Hypalon	
H-G4-225-100	75 x 75 x 75	100	24	Weight	: 816 gms /sq.mtr	
H-G4-250-100	75 x 100 x 75	100	24		: 24 oz/sq. yard	
H-G4-300-100	75 x 150 x 75	100	24	Tear Strength	: 22 x 18 kgs	
H-G4-350-100	100 x 150 x 100	100	24		: 48 x 39 lbs	
				Tensile Strength	: 102 x 136 kgs	
					: 225 x 200 lbs	
				Low Temp	: -40 deg C (-40 deg F)	
				High Temp	: 121 deg C (250 deg F)	
				Burst Strength	: 800psi	
Polyurethane						
P-G8-145-100	45 x 75 x 45	100	28	Basic Fabric	: Woven Fibreglass	Polyurethane coated fabrics are fragile in construction but have a longer resistance period to high temperatures. Airtight and waterproof construction UV resistant. Rated Class 1 as per BS 476, Part 7 Tests. Rated Class 0 as per BS 476, Part 6 Tests. Achieves Class 1 when tested as per ASTM - E84 Surface Burning Characteristics.
P-G8-230-100	70 x 100 x 70	100	28	Coating	: Polyurethane	
P-G4-225-100	75 x 75 x 75	100	24	Weight	: 460 gms /sq.mtr	
P-G4-250-100	75 x 100 x 75	100	24		: 13 oz/sq. yard	
P-G4-300-100	75 x 150 x 75	100	24	Tear Strength	: 16 x 14 kgs	
P-G4-350-100	100 x 150 x 100	100	24		: 35 x 30 lbs	
				Tensile Strength	: 75 x 82 kgs	
					: 165 x 180 lbs	
				Low Temp	: -40 deg C (-40 deg F)	
				High Temp	: 200 deg C (392 deg F)	
				Burst Strength	: 400psi	

FLEXIBLE DUCT CONNECTOR

Part No.	Size Metal x Fabric x Metal (mm)	Length (Feet)	Metal Gauge	Fabric Technical Specifications	Features
Canvas					
C-G8-145-100	45 x 75 x 45	100	28	Basic Fabric : Canvas Weight : 535 gms /sq.mtr : 16 oz/sq. yard Tear Strength : 4 x 4 kgs : 9 x 9 lbs Tensile Strength : 127 x 96 kgs : 280 x 210 lbs Low Temp : -40 deg C (-40 deg F) High Temp : 93 deg C (200 deg F)	Traditional Canvas cloth used for air conditioning and ventilating applications, indoors and outdoors. Airtight and waterproof construction
C-G8-230-100	70 x 100 x 75	100	28		
C-G8-280-100	70 x 150 x 70	100	28		
C-G8-300-100	75 x 150 x 75	100	28		UV resistant.
C-G4-300-100	75 x 150 x 75	100	24		Fire rated as per EN 532 and EN 533.

All AERODUCT Connectors utilise galvanised steel meeting ASTM A-525-G90 standards.

All AERODUCT Connectors are designed to meet NFPA 90A and 90B standards.

All AERODUCT Connectors have ODP=0 & GWP<5.

Sizes other than the above can be manufactured on request.

Duct Fabric

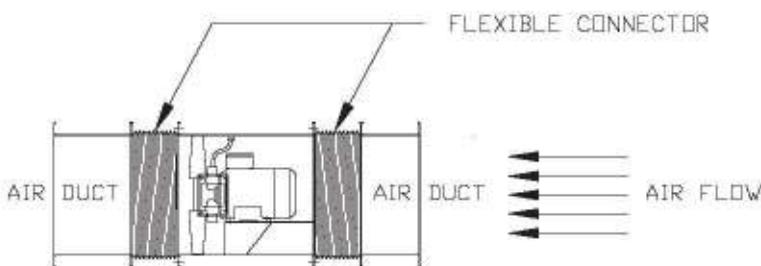
The complete range of AERODUCT fabrics are also available without metal for customers who have the need for only the fabric. Standard roll widths are given in the table and are available in lengths of 100 feet. Other widths and lengths are available on request.



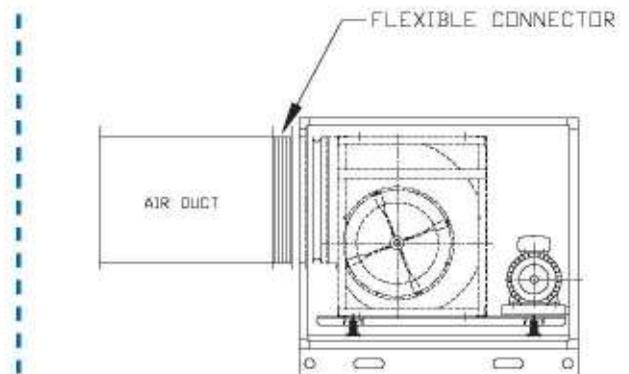
Fabric	Model No.	Width of Fabric	Length
Vinyl	V-75-100	3" (75 mm)	100 feet
Vinyl	V-100-100	4" (100 mm)	100 feet
Vinyl	V-150-100	6" (150 mm)	100 feet
Neoprene BS	BSN-75-100	3" (75 mm)	100 feet
Neoprene BS	BSN-100-100	4" (100 mm)	100 feet
Neoprene BS	BSN-150-100	6" (150 mm)	100 feet
Silicon	S-75-100	3" (75 mm)	100 feet
Silicon	S-100-100	4" (100 mm)	100 feet
Silicon	S-150-100	6" (150 mm)	100 feet

Fabric	Model No.	Width of Fabric	Length
Hypalon	H-75-100	3" (75 mm)	100 feet
Hypalon	H-100-100	4" (100 mm)	100 feet
Hypalon	H-150-100	6" (150 mm)	100 feet
Polyurethane	P-75-100	3" (75 mm)	100 feet
Polyurethane	P-100-100	4" (100 mm)	100 feet
Polyurethane	P-150-100	6" (150 mm)	100 feet

Typical Application



EXHAUST FANS



FAN COIL / AIR HANDLING UNITS

INSULATED FLEXIBLE DUCT CONNECTOR



"Dual Lock" Grip



For acoustically treated ductwork and supply ducts, it is important that the fabric of the connector is also insulated in addition to the insulation fixed on the ducting. This enables the Flexible Duct Connector to achieve maximum effectiveness.

Externally insulating the fabric, may damage the coating on it, and also make it stiff thereby affecting the noise and vibration absorption properties of the fabric. AERODUCT has a complete range of "Insulated Duct Connectors" which use a 25mm thick fibreglass insulation of R Value 4.2, sandwiched between two layers of fabric. The various options of fabrics offered in insulated models, ensure that the Flexible Duct Connectors can be used for all possible types of ductwork installations. Thicker and higher density fibreglass can be provided on request.

All models of Insulated Duct Connectors from AERODUCT are available in 24 Gauge and 28 Gauge Steel.

*Fibreglass specifications on page 11.

INSULATED FLEXIBLE DUCT CONNECTOR

Part No.	Size Metal x Fabric Metal (mm)	Length (Feet)	Metal Gauge	Fabric Technical Specifications		Features
VINYL						
ISV-G8-230-100	70 X 100 X 70	100	28	Fabric	Vinyl Coated Polyester Yarn	Vinyl is the most commonly used fabric for all air duct installation due to its high tear strength and high abrasion resistance. Recommended for low to medium pressure ductwork systems.
ISV-G8-280-100	70 X 150 X 70	100	28	Insulation	Fibreglass 12 kg/m ³ , 25mm thickness	
ISV-G4-250-100	75 x 100 x 75	100	24	R Value	4.2	UV resistant
ISV-G4-300-100	75 x 150 x 75	100	24	Weight	576 gms /sq.mtr, 17oz /sq. yard	
				Tear Strength	45 x 45 kgs (100 x 100 lbs)	Achieves Class 1 when tested as per ASTM - E84 - Surface Burning Characteristics
				Tensile Strength	108 x 100 kgs (240 x 220 lbs)	
				Low Temp	- 40 deg C / - 40 deg F	
				High Temp	93 deg C / 200 deg F	
				Burst Strength	400psi	
NEOPRENE BS						
ISBSN-G8-230-100	70 X 100 X 70	100	28	Fabric	Neoprene Coated Woven	Neoprene is recommended for use in application where high mechanical strength is required. Neoprene is extremely resistant to most alkalies, gasoline and toxic fumes.
ISBSN-G8-280-100	70 X 150 X 70	100	28	Insulation	Fibreglass 12 kg/m ³ , 25mm thickness	
ISBSN-G4-250-100	75 X 100 X 75	100	24	R Value	4.2	UV resistant
ISBSN-G4-300-100	75 X 150 X 75	100	24	Weight	1016 gms / sq. mtr (30 oz/sq.yard)	
				Tear Strength	5.5 x 5.5 kgs (12 x 12 lbs)	Achieves Class 1 when tested as per ASTM - E84 - Surface Burning Characteristics
				Tensile Strength	226 x 204 kgs (500 x 450 lbs)	
				Low Temp	-40 deg C (-40 deg F)	
				High Temp	121 deg C (250 deg F)	
				Burst Strength	800psi	Rated Class 1 as per BS 476, Part 7 Flame Tests.
SILICON						
ISS-G8-230-100	70 X 100 X 70	100	28	Fabric	Silicon Rubber coated	Silicon fabric has a special Silicon coating that has excellent resistance to high and low temperatures. Silicon is extremely resistant to chemicals and ozone, and emits very low smoke when burnt. Recommended for applications where high temperature is of main concern in both indoor and outdoor installation.
ISS-G8-280-100	70 X 150 X 70	100	28	Insulation	Woven Fibreglass 12 kg/m ³ , 25mm thickness	
ISS-G4-250-100	75 X 100 X 75	100	24	R Value	4.2	UV resistant
ISS-G4-300-100	75 X 150 X 75	100	24	Weight	627 gms /sq.mt (18.5 oz/sq. yard.)	
Rated for use at 400 deg C for 2 hours 				Tear Strength	27 x 22 kgs (60 x 50 lbs)	Achieves Class 1 when tested as per ASTM - E84 - Surface Burning Characteristics
				Tensile Strength	81 x 90 kgs (180 x 200 lbs)	
				Low Temp	- 40 deg C (- 40 deg F)	
				High Temp	300 deg C (573 deg F)	
				Burst Strength	450psi	Rated Class 1 as per BS 476, Part 7 tests.
POLYURETHANE						
ISP-G8-230-100	70 X 100 X 70	100	28	Fabric	Polyurethane Coated Woven	Polyurethane Coated Fabrics are fragile in construction but have a longer resistance period to high temperatures.
ISP-G8-280-100	70 X 150 X 70	100	28	Insulation	Fibreglass 12 kg/m ³ , 25mm thickness	
ISP-G4-250-100	75 X 100 X 75	100	24	R Value	4.2	Airtight and waterproof construction
ISP-G4-300-100	75 X 150 X 75	100	24	Weight	460 gms /sq.mtr (13 oz/sq. yard)	
				Tear Strength	16 x 14 kgs (35 x 30 lbs)	UV resistant.
				Tensile Strength	75 x 82 kgs (165 x 180 lbs)	
				Low Temp	-40 deg C (-40 deg F)	
				High Temp	200 deg C (392 deg F)	
				Burst Strength	400psi	Rated Class 1 as per BS 476, Part 7 Tests Rated Class 0 as per BS 476, Part 6 Tests.
						Achieves Class 1 when tested as per ASTM - E84 Surface Burning Characteristics

SPECIFICATION SHEET

Fabric	Weight	Thickness	Tensile Strength	Tear Strength	Low Temp	High Temp	Abrasion Resistance	Leakage Resistance	Fire Ratings
	TEST METHOD								
	ASTM D751-89	ASTM D1777-96	ASTM D751-89	ASTM D751-89	ASTM D573	ASTM D573	Federal Test Std. 191 # 5306	Federal Test Std. 191 # 5512	
Vinyl	28 gauge 576 gms /sq.mtr 17oz /sq. yard 24 gauge 745 gms /sq.mtr 22oz /sq. yard	0.41 +/- 0.03mm 0.46 +/- 0.03mm	108 x 100 kgs 240 x 220 lbs	45 x 45 kgs 100 x 100 lbs	- 40°C - 40°F	93°C 200°F	15,500 cycles	450 psi	ASTM E 84 - Class 1.
Neoprene BS	1016 gms/ sq.mtr 30 oz/ sq.yard	0.43 +/- 0.03mm	226 x 204 kgs 500 x 450 lbs	5.5 x 5.5 kgs 12 x 12 lbs	- 40°C - 40°F	121°C 250°F	550 cycles	450 psi	ASTM E 84 - Class 1. Rated Class 1 as per BS 476, part 7
Silicon Rated for use at 400 deg C for 2 hrs	627 gms/ sq.mtr 18.5 oz/ sq.yard 895 gms/ sq.mtr 26 oz/ sq.yard	0.46 +/- 0.03mm	81 x 90 kgs 180 x 200 lbs	27 x 22 kgs 60 x 50 lbs	- 40°C - 40°F	300°C 573°F	135 cycles	450 psi	ASTM E 84 - Class 1. Rated Class 1 as per BS 476, part 7
Hypalon	816 gms/ sq.mtr 24 oz/ sq.yard	0.58 +/- 0.03mm	102 x 136 kgs 225 x 200 lbs	22 x 18 kgs 48 x 39 lbs	- 40°C - 40°F	121°C 250°F	500 cycles	250 psi	ASTM E 84 - Class 1.
Polyurethane	460 gms/ sq.mtr 13 oz/ sq.yard	0.40 +/- 0.03mm	75 x 82 kgs 165 x 180 lbs	16 x 14 kgs 35 x 30 lbs	- 40°C - 40°F	200°C 392°F	110 cycles	400 psi	Rated Class 1 as per BS 476, Part 7 Tests Rated Class 0 as per BS 476, Part 6 Tests ASTM E 84 - Class 1.
Canvas	535 gms/ sq.mtr 16 oz/ sq.yard	0.41 +/- 0.03mm	127 x 96 kgs 280 x 210 lbs	4 x 4 kgs 9 x 9 lbs	- 40°C - 40°F	93°C 200°F	70 cycles	400 psi	EN 532, EN 533

INTERNATIONAL TEST CERTIFICATES



PSB Singapore



Flexible Duct Connectors
(Vinyl, Neoprene, Silicon)
In accordance with
ANSI / NFPA 701

Flexible Duct Connectors
ASTM E-84
(Vinyl, Neoprene, Silicon, Polyurethane)
BS 476 part 7, Class 1
(Neoprene, Polyurethane)
BS 476 part 6, Class O (Polyurethane)
BS 476 part 6, Class O (Flexible ducts)

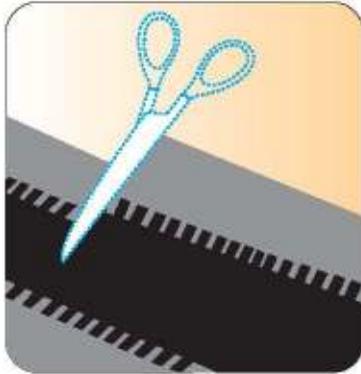
ODP = 0
GWP < 5

Flexible Ducts
BS 476 part 7, Class 1

RECOMMENDED INSTALLATION PROCEDURE

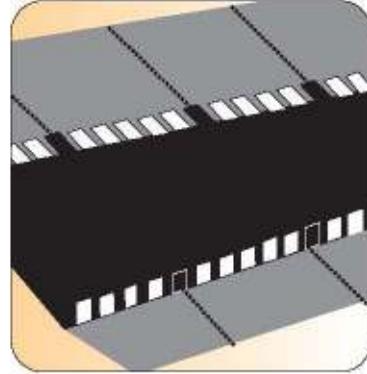
Ensure that the notched side of the connector faces outward and position the joint in the middle of a side rather than at a corner.

1.



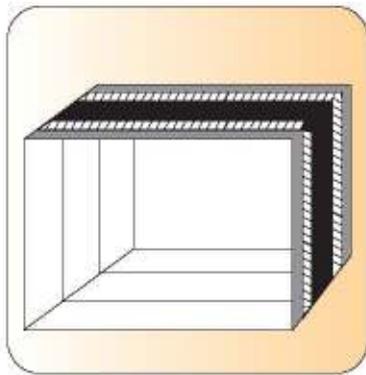
Remove the roll from the box, and cut the connector to the required length.

2.



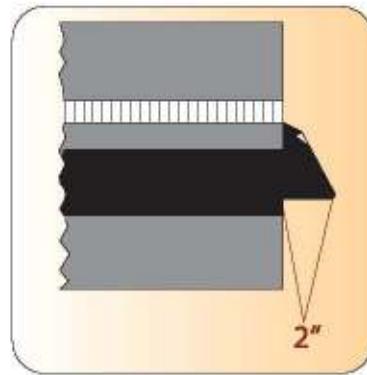
Holding the seam portion upwards to an angle of 90 degrees, make notches at the points where bending is required.

3.



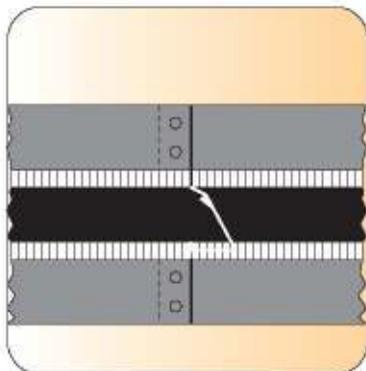
Bend the connector to form the required shape.

4.



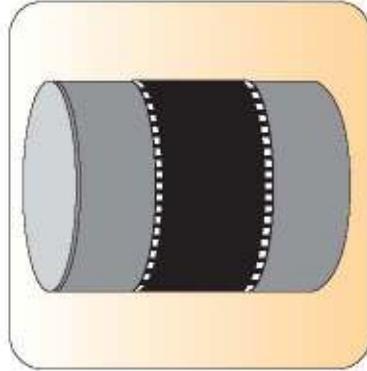
From the end of the connector, cut away the metal portion exposing only the fabric, with length of around 2 inches.

5.



Join the two ends of the sheet metal by using rivets or screws. Apply a liberal amount of adhesive on the fabric portion under the tongue, and hold the joint for few seconds to ensure the seal.

6.



Round Flexible connections can also be fabricated using the same procedure.

One side of the connector to be fixed with rivets on the mouth of the equipment and the other side to be fixed with rivets onto duct.

CERTIFICATE OF COMPLIANCE

Certificate Number 20130329-R27561
Report Reference R27561-20130329
Issue Date 2013-MARCH-29

Issued to: HIRA INDUSTRIES L L C
DUBAI INVESTMENTS PARK - 2
DUBAI UNITED ARAB EMIRATES

**This is to certify that
representative samples of**

AIR DUCT VIBRATION ISOLATION CONNECTORS
Aeroduct Vibration Isolation Connectors Identified as Vinyl,
Silicon Coated Fiberglass and Neoprene Coated
Fiberglass.

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

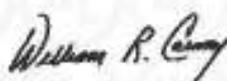
Standard(s) for Safety: NFPA 701- Standard Methods of Fire Tests for Flame
Propagation of Textiles and Films – Methods 1 and 2

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Classification Mark should be considered as being covered by
UL's Classification and Follow-Up Service.

The UL Classification Mark includes: UL in a circle; with the word "CLASSIFIED"  (as shown); a control
number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of
the product; and the product category name (product identity) as indicated in the appropriate UL
Directory.

Look for the UL Classification Mark on the product.



William R. Casney, Director, North American Certification Programs
UL LLC

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