



REVISIONS				DOC. NO. SPC-F004 * Effective: 7/8/02 * DCP No: 1398				
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
	B	Marking removed, spec revised	JAP	2/19/92	JC	2/19/92	JC	2/19/92
1199	C	Renamed -was PHS-0**-****-BLK	JWM	9/24/01	JC	10/16/01	JC	10/16/01

The **PHS** series is a flexible, adhesive-lined, flame retardant, thin wall polyolefin with an integral internal layer of special thermoplastic adhesive that bonds with a wide variety of rubber, plastics and metals, forming a permanent, non-drying, flexible and water proof barrier.

**Shrink Ratio: 3:1    Shrink Temp: 121°C (259°F)    Operating Temp: -55°C ~ 110°C (-67°F~230°F)**

Dimensions				Standard Packages (Color: Black)					
Size	Expanded I.D. (Min)	Recovered I.D. (Max)	Recovered Nominal Wall Thickness	4 Foot Lengths (+1", -0")			6 Inch Lengths ( ± .125")		
				Type No.	Pcs	Total Footage	Type No.	Pcs	Total Footage
				1/8"	.125"	.040"	.040"	PHS-008-4025-BLK	25
3/16"	.187"	.062"	.040"	PHS-012-4025-BLK	25	100 FT	PHS-012-6024-BLK	24	12 FT
1/4"	.250"	.080"	.040"	PHS-016-4025-BLK	25	100 FT	PHS-016-6020-BLK	20	10 FT
3/8"	.375"	.120"	.055"	PHS-024-4025-BLK	25	100 FT	PHS-024-6016-BLK	16	8 FT
1/2"	.500"	.160"	.070"	PHS-032-4005-BLK	5	20 FT	PHS-032-6014-BLK	14	7 FT
3/4"	.750"	.250"	.085"	PHS-048-4005-BLK	5	20 FT	PHS-048-6012-BLK	12	6 FT
1"	1.000"	.320"	.100"	PHS-064-4005-BLK	5	20 FT	PHS-064-6008-BLK	8	4 FT
1 1/2"	1.500"	.510"	.100"	PHS-096-4005-BLK	5	20 FT	PHS-096-6005-BLK	5	2.5 FT

**TYPICAL PROPERTIES**

**Physical**

Tensile Strength                    2100 PSI  
 Ultimate Elongation                450%  
 Longitudinal Change                +1%, -15%  
 Secant Modulus (2%)                17,000 PSI  
 \*Heat Aging                            Elongation 175%  
   (168 hrs @ 175°C)  
 \*Heat Shock                            No dripping,  
   (4 hrs @ 225°C)                    cracking, or flowing  
 \*Low Temp Flexibility                No cracking  
   (4 hrs @ -55°C)  
 \*\*Flexibility:                            3  
 Flammability: Self-extinguishing, meets UL 224  
   All-Tubing Flame Test (jacket)

**Electrical**

Dielectric Strength                    700 V/mil  
 Volume Resistivity                    10<sup>14</sup> ohm-cm

**Chemical**

Corrosive Effect                        Non-corrosive  
 Water Absorption                        0.3%  
 Fungus Resistance                        Non-nutrient  
 Fluid Resistance                        Excellent  
 Applicable Specifications: MIL-DTL-23053/4 Class 3

**Adhesive**

Peel Strength, pli  
 Polyethylene                            30  
 PVC                                        10  
 Lead                                        15  
 Aluminum                                40



Corrosive Effect                        Non-corrosive

\*Outer wall only.

\*\*Flexibility: The materials are rated on a scale of 1~10. (1=most flexible and 10=most rigid)

*The technical information provided consists of typical product data and should not be used for specification purposes. Unless otherwise noted, all tests are performed at room temperature.*

SPC-F004.DWG

TOLERANCES: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.	DRAWN BY:	DATE:	DRAWING TITLE:			
	JAP	2/19/92	High Shrink-Adhesive Lined, Polyolefin Tubing			
	CHECKED BY:	DATE:	SIZE	DWG. NO.	ELECTRONIC FILE	REV
	JC	2/19/92	A	TA-409	TA-409.dwg	C
	APPROVED BY:	DATE:	SCALE:	U.O.M.: INCHES [mm]	SHEET:	
	JC	2/19/92	NTS		1 OF 1	

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