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NO. : S/P9007

TO WHOM IT MAY CONCERN:

SPECIFICATION FOR SUMITUBE F32



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1. SCOPE

THIS SPECIFICATION COVERS NEW **SUMITUBE F32** .

2. FEATURE

NEW **SUMITUBE F32** IS AN IRRADIATED CROSSLINKED , THERMALLY-STABILIZED , FLAME-RETARDANT FLEXIBLE POLYOLEFIN HEAT SHRINKABLE TUBING .
UNLIKE OTHER TYPICAL FLAME-RETARDANT TUBING , NEW **SUMITUBE F32** IS FREE OF POLYBROMINATED BIPHENYL OXIDES (PBBOs) , POLYBROMINATED BIPHENYL ETHERS (PBBEs) , POLYBROMINATED BIPHENYLS (PBBs) AS FLAME-RETARDED CHEMICALS .

3. RECOGNITION

NEW **SUMITUBE F32** IS UL-RECOGNIZED AND CSA-CERTIFIED AT 125 DEG. C , 600 V WITH UL VW-1 AND CSA OFT FLAME-RETARDANCY RATING .



	UL 224	CSA
VALTAGE RATING	600V	600V
TEMPERATURE RATING	125 DEG. C	125 DEG. C
CATALO NO.	SUMITUBE F32	SUMITUBE F32
FILE NO.	E48762	LR84766

4. COLOR

STANDARDS COLORS ; BLACK , WHITE , BROWN , RED , ORANGE , BLUE , GREEN , YELLOW , VIOLET , GRAY .

5. MARKING

FOLLOWING LETTERS SHOULD BE PRINTED ON THE SURFACE OF THE PRODUCTS .

 **SUMI-PAC SUMITUBE F32 CSA 125°C VW-1 -F- (Size)** 

6. STANDARD SIZES

STANDARD SIZES SHALL BE SPECIFIED IN TABLE 1& 2.

7. PROPERTIES.

PROPERTIES SHALL BE AS SPECIFIED WITH TABLE 3 .

8. METOD OF MEASURING SIZES AND TESTING PROPERTIES**1.) INSIDE DIAMETER**

INSIDE DIAMETER SHALL BE MEASURED BY A METAL GAGE ROD OR A METAL TAPE GAGE WHICH HAS INTERVAL OR GRADUATION .

IN CASE OF USING A GAGE ROD : READ THE VALUE OF THE MAXIMUM GAGE ROD WHICH SHALL PASS FREELY INTO THE TUBING WITHOUT EXPANDING THE TUBING .

IN CASE OF USING A TAPER GAGE : READ THE VALUE ON THE GAGE WHEN THE TUBING ISN'T EXPANDED BY INSERTION AND THERE IS NO VISIBLE SPACE BETWEEN THE TUBING AND THE TAPER GAGE .

2.) WALL THICKNESS

WALL THICKNESS SHALL BE MEASURED BY A PIN-DIAL GAGE OR A MICROMETER AT SEVERAL POINTS .

3.) SHRINKABLE CONDITION AND LONGITUDINAL CHANGE

SHRINKABLE CONDITION : UNRESTRICTED SHRINKAGE SHALL BE PLACED AT 150 DEG. C IN A CIRCULATING AIR OVEN FOR 5 MINUTES .

LONGITUDINAL CHANGE : THE TUBING SHALL BE CUT IN ABOUT 100 MM AND MEASURED THE LENGTH , AFTER UNRESTRICTED SHRINKAGE (AFTER RECOVERED) THE LENGTH IS TO BE RE-MEASURED , AND THE LONGITUDINAL CHANGE SHALL BE CALCULATED FROM THE FOLLOWING FORMULA.

$$\text{LONGITUDINAL CHANGE} = \frac{\text{LENGTH AFTER RECOVERED} - \text{LENGTH AS SUPPLIED}}{\text{LENGTH AS SUPPLIED}} * 100 \%$$

$$\text{ECCENTRICITY (\%)} = \frac{\text{MIN. THICKNESS}}{\text{MAX. THICKNESS}} * 100 \%$$

4.) PROPERTIES SHALL BE TESTED IN ACCORDANCE WITH UL224 & CSA 22.2 NO. 198.1 TEST METHOD .

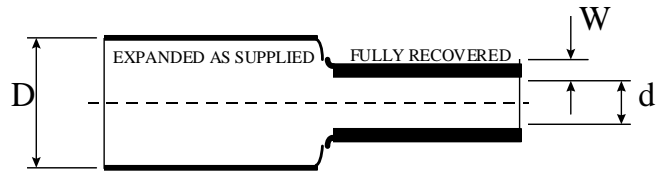


TABLE 1. STANDARD SIZE

TRADE SIZE (METRIC)	AS SUPPLIED (MM)		AFTER RECOVERED (MM)		STANDARDS
	INSIDE DIAMETER	NOM. WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	LENGTH
	D	THICKNESS	d (MAX)	W (MIN)	SPOOL(M)
1*0.20	1.40±0.20	0.20	0.50	0.33	200
1.5*0.20	2.00±0.20	0.20	0.75	0.36	200
2*0.20	2.50±0.20	0.20	1.00	0.44	200
2.5*0.25	3.00±0.20	0.25	1.25	0.44	200
3*0.25	3.50±0.30	0.25	1.50	0.44	200
3.5*0.25	4.00±0.30	0.25	1.75	0.44	200
4*0.25	4.50±0.30	0.25	2.00	0.44	200
5*0.25	5.40±0.30	0.25	2.50	0.56	100
6*0.25	6.40±0.40	0.25	3.00	0.56	100
7*0.25	7.40±0.40	0.25	3.50	0.56	50
8*0.25	8.40±0.40	0.25	4.00	0.56	50
9*0.25	9.40±0.40	0.25	4.50	0.56	50
10*0.25	10.4±0.40	0.25	5.00	0.56	50
11*0.25	11.4±0.40	0.25	5.50	0.56	50
12*0.25	12.4±0.40	0.25	6.00	0.56	50
13*0.30	13.5±0.40	0.30	6.50	0.69	50
14*0.30	14.5±0.40	0.30	7.00	0.69	50
15*0.30	15.5±0.50	0.30	7.50	0.69	50
16*0.30	16.8±0.50	0.30	8.00	0.69	50
18*0.35	18.7±0.50	0.35	9.00	0.77	50
20*0.35	21.2±0.60	0.35	10.00	0.77	50
22*0.40	23.2±0.60	0.40	11.00	0.77	50
25*0.40	26.1±0.80	0.40	12.50	0.87	50
28*0.50	29.0±1.00	0.50	14.00	0.87	50
30*0.50	32.0±1.00	0.50	15.00	0.87	50

TABLE 2. STANDARD SIZE

TRADE SIZE (INCH)	AS SUPPLIED (MM)		AFTER RECOVERED (MM)		STANDARDS
	INSIDE DIAMETER	NOM. WALL	INSIDE DIAMETER	WALL THICKNESS	LENGTH
	D	THICKNESS	d (MAX)	W (MIN)	SPOOL(M)
3/64"	1.60±0.20	0.20	0.60	0.33	200
1/16"	2.10±0.20	0.20	0.80	0.36	200
3/32"	2.70±0.20	0.25	1.20	0.44	200
1/8"	3.60±0.20	0.25	1.60	0.44	100
3/16"	5.20±0.30	0.25	2.40	0.44	100
1/4"	6.80±0.40	0.30	3.20	0.56	50
3/8"	10.00±0.40	0.30	4.80	0.56	50
1/2"	13.20±0.50	0.30	6.40	0.56	50
3/4"	20.00±0.60	0.35	9.50	0.69	50
1"	26.60±0.80	0.40	12.70	0.77	50

REMARK:

*LONGITUDINAL CHANGE :-5±5%

*ECCENTRICITY OF WALL THICKNESS : 60%(MIN.)

*UNRESTRICTED SHRINKAGE SHALL BE FOR 5 MINUTES AT 150 DEG. C IN
A CIRCULATING AIR-OVEN .