

# SPECIFICATION

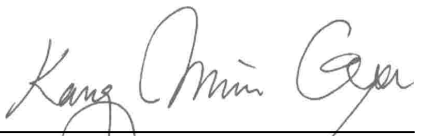
For

heat shrinkable, flexible elastomeric polyolefin  
(Shrinkage 2:1) tubing used for 120°C.

(Type designation : LG-DRET)

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PREPARED BY

  
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## 1. Scope

This specification covers the requirements for heat shrinkable, flexible elastomeric (Shrinkage 2:1) tubing used for 120°C. (Type designation : LG-DRET)

## 2. Reference Standard

The following documents form a part of this specification to the extent specified herein.

MIL-DTL-23053/16 : Insulation Sleeving, Electrical, Heat shrinkable, Crosslinked elastomer, flexible.

## 3. Standard

The insulation shall be an irradiated cross-linked Elastomeric polyolefin complying with MIL specification.

Expanded inside diameter and recovered thickness at any point of insulation shall be in the attached table 1. The standard color of insulation is Black.

## 4. Applied Recipe

The used material of insulation is in the attached table 2.

## 5. Performance

The following item shall be carried out in accordance with MIL specification.

Test Item	Characteristics	Test condition
Expanded inside diameter	Attached table 1	-
Recovered inside diameter	Attached table 1	-
Recovered thickness at any point	Attached table 1	-

Test Item	Characteristics	Test condition	
Unaged	Tensile strength	ASTM D 412 175°C/10 min @ 100% elongation ASTM D 2671	
	Elongation		Min. 250%
	100% Tensile stress		Max. 1.06 kgf/mm <sup>2</sup>
	Dielectric strength		Min. 11.9kV/mm
Aged	Tensile strength	ASTM D 412 150°C/168 hrs	
	Elongation		Min. 200 %
Heat shock	No crack	200°C/4 hrs	
Low temperature flex	No crack	-65°C/4 hrs	
Restricted shrinkage	No crack	150°C	
Voltage withstand	Pass	2,500V/min	
Copper corrosion	No pitting or corrosion	136°C/16 hrs	
Volume resistivity	Min. $1.0 \times 10^9 \Omega\text{-cm}$	ASTM D 876	

Water absorption		Max. 2.0% @ 23°C/24 hrs	ASTM D 570
Fluid resistance *Refer to below test fluid	Tensile strength	Min. 1.06 kgf/mm <sup>2</sup>	ASTM D 412
	Elongation	Min. 200%	
	Dielectric strength	Min. 7.9kv/mm	ASTM D 2671
Fungus resistance		Pass	ASTM G 21
Flammability		Pass	ASTM D 2671 Procedure B

## ※ Test fluid

Fluid	Conforming to
Hydraulic fluid petroleum base	MIL-H-5606
JP-8	MIL-T-5624
Lubricating oil	MIL-L-7808
Lubricating oil	MIL-L-23699
5 percent NaCl	A-A-694
Deicing fluid	MIL-A-8243

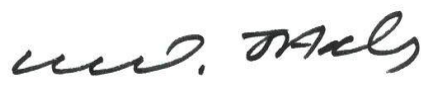
## 6. Storage condition

Keep cool. Don't expose tubes to the direct rays of sun to prevent natural shrinkage and don't keep this package over 8 hours at temperature exceeding 40°C (104F)

## Attached Table 1.

Standard Size (Inch size)	팽창후(Expanded)		수축후(Recovered)		Standard Length [m]
	Inside Diameter [mm]	Nominal Thickness [mm]	Max. Inside Diameter [mm]	Min. Thick. At any point [mm]	
3/32	3.0 ± 0.3	0.40	1.2	0.60	200
1/8	3.6 ± 0.3	0.45	1.57	0.70	200
3/16	5.3 ± 0.3	0.45	2.36	0.75	100
1/4	7.0 ± 0.5	0.45	3.18	0.80	100
3/8	10.3 ± 0.5	0.50	4.75	0.90	50
1/2	13.5 ± 0.5	0.60	6.35	1.05	50
5/8	17.5 ± 1.0	0.60	7.94	1.25	50
3/4	20.5 ± 1.0	0.70	9.53	1.45	50
7/8	26.0 ± 3.0	0.90	11.12	1.50	50
1	28.5 ± 3.0	0.85	12.70	1.70	50
1-1/4	35.0 ± 3.0	1.00	15.90	2.20	31
1.5	41.5 ± 3.0	1.10	19.10	2.45	31

Attached Table 2.

MATERIAL IDENTIFICATION	IDENTI. No	LSCGBT-081202
	ISSUED DATE	Dec . 02. 2008
NOMENCLATURE	HEAT SHRINKABLE FLEXIBLE ELASTOMERIC POLYOLEFIN	
TYPE & STYLE	LG-DRET	
BRIEF DESCRIPTION	RATING	120°C
	DESCRIPTION OF RAW MATERIAL	1) MATERIAL OF COMPOUND - Heat Shrinkable Elastomer  2) MANUFACTURER OF COMPOUND - LS cable Ltd.
REMARKS	REFERENCE SPECIFICATION : MIL-DTL-23053/16	
<p>WE CERTIFY THAT THE ABOVE MENTIONED MATERIAL HAS BEEN USED</p> <p style="text-align: center;">LS Cable Ltd.</p> <p style="text-align: right;"></p> <p style="text-align: right;">General Manager H. W. Jang</p>		