# Heat Shrinkable Solutions for Automotive Hose and Pipe

## A3 Brake / Fuel Line Protection Heat Shrinkable Tubing

Voltage Class 1kV Ideal for protection of metal line that are subject to bending and clamping

Dual wall Heat Shrinkable tubes specially designed for automotive market. Provide preventive protection against corrosion and protect against stone and gravel damage. The semi-rigid outer layer also prevent damage occurs during parts installation, clamping and servicing. The adhesive inner layer seal against moisture and will not separate from the substrate during bending operations.

### **Applications**

 Protection of brake line, fuel line, hydraulic line or other metal pipeline which is subject to bending or clamping operations during manufacturing, installation or operation

#### Features/Benefits

- Shrink Ratio: 1.5:1
- Semi-rigid outer layer for mechanical damage prevention
- Adhesive inner layer, sealing against moisture and prevent corrosion
- Easy installation, the adhesive layer will not separate from pipeline during bending process

#### **Product Code Cross References**

Raychem: AP2000

DSG Canusa : DERAY-IAKT NS / DERAY-MDKT NS / DERAY-IBKT

LG : LGHS-2690NW



#### Temperature Range

Operating Temperature:

-55 °C ~ 80 °C

Shrink Temperature

110 °C

#### Colour

Black

## **Technical Details**

Test Item	Test Method	Typical Data	
Tensile strength	ASTM D2671	≥ 18MPa	
Breakdown elongation	ASTM D2671	≥ 400%	
Outer layer specific gravity	ASTM D792	1.0	
Tensile strength after aging	ASTM D2671		
Breakdown elongation after aging	ASTM D2671	≥ 320%	
Heat impact (200°C for 4h)	ASTM D2671	outer layer no drop no flow	
Low temperature flexibility (-55°C for 4h)	ASTM D2671	outer layer no cracking	
Low temperature flexibility (-55°C for 4h)	ASTM D2671	outer layer no cracking	
Volume Resistivity	ASTM D2671	$\geq 10^{14}\Omega$ .cm	
Dielectric strength	ASTM D2671	≥ 20kV/mm	
Water absorption	ASTM D570	≤ 0.4%	
Copper corrosion	ASTM D2671	pass	
Horizontal impact resistance (at -35°C)	ASTM D746	no damage	
Drop impact resistance (at -35°C)	ASTM D746	no damage	
Stress cracking resistance	ASTM D1693 Part 5.3.6	no damaget	

## **Product Selection**

Product Code	Min. wall thickness after free recovery(mm)	Adhesive layer thickness after free recovery(mm)	Standard Package (m/roll)
А3-Ф5.5/3.3	1.0±0.1	0.2	200
А3-Ф6.5/4.6	1.0±0.1	0.2	200
А3-Ф8.5/6.0	1.0±0.1	0.2	100
АЗ-Ф11.0/7.0	1.0±0.1	0.2	100
А3-Ф15/9.5	1.0±0.1	0.2	100

## Ordering

When ordering this product, please specify 1) Product code 2) Quantity Required in number of rolls