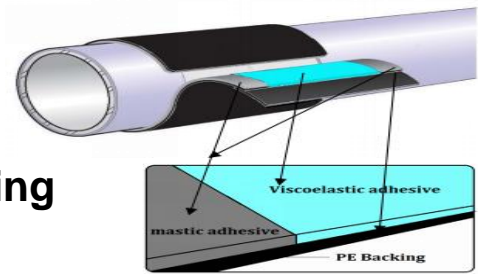


3C Sleeve (Visco-elastic)



3C Dual-Adhesive Heat Shrink Sleeve Composite Configuration Field Joint Coating



GUARDIAN 3C Heat Shrinkable Wraparound Sleeve (Visco-Elastic Mastic Composite Configuration Coating Sleeve or 3C), is at the forefront in the latest of pipeline field joint technology, being specifically designed and developed for the pipeline industry incorporating the best in proven field joint corrosion protection technology.

GUARDIAN 3C combines the benefits and ease of application associated with the use of Heat Shrinkable Sleeves with proven long term Visco-Elastic flow and adhesion properties.

GUARDIAN 3C Visco-Elastic incorporation into the Heat Shrinkable Sleeve overcomes any potential variability in heat shrinkable sleeve application as the Visco-Elastic Mastic layer ensures intimate adhesion of the sleeve onto the steel and parent coating.

CONFIGURATION

GUARDIAN 3C Dual-Adhesive Heat Shrinkable Wraparound Sleeve:

Visco-Elastic / Adhesive Mastic Component: Visco-Elastic Mastic is extruded onto the centre section of the sleeve, for intimate contact with the steel pipe joint and parent coating upon application. Adhesive Mastic is extruded onto the sleeve on both sides of the Visco-Elastic component of the sleeve radially, forming a high strength bond on the pipe parent coating following application.

Backing : Radiation cross-linked high density polyethylene.

BENEFITS

Surface Tolerance: Highly Compatible with Steel, PE, PP, FBE and PU. Also suitable for Pipe Bends, Pipe Elbows, Fittings and Coating Repairs.

Conformability and Impact Resistance: Highly Versatile.

Long Term Performance: Utilising proven Technology. Visco-Elastic and Hot-Melt Mastic on a Radiation Cross-linked HDPE Backed Sleeve.

Fast and Easy Application: User friendly with cost benefits.

No Primer Required: Cost Effective.

PACKAGING

Part No.	Size	Length
FG001231	150g	30m
FG001235	300g	30m

Other sizes are available on an indent basis.

APPLICATION

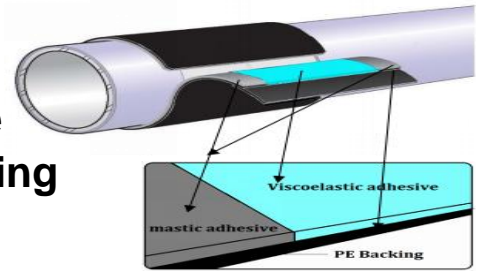
Clean substrate to Class St2 or St3 (ISO 8501-1:2007). Remove surface moisture. Closure patch is pre-attached, minimising application time. Refer to the Application Data Sheet.

SHELF LIFE

2 years, under correct storage conditions in a dry, well ventilated area, in original sealed cartons between - 20°C and 40°C

All statements and data presented herein are given in good faith and believed to be appropriate and reliable. It is given without express or implied warrant or guarantee. Potential users of Guardian's materials are urged to conduct confirmatory trials to satisfy themselves as to the suitability of the selected product for their particular end use prior to purchase.

3C Dual-Adhesive Heat Shrink Sleeve Composite Configuration Field Joint Coating



APPLICATION GUIDE

Performance Standard	ISO/DIS 21809 3
Compatible Mainline Coatings	PE, PP, FBE, PU
Soil Stress Restrictions	None
Max Operating Temperature	80°C
Environment Temperature Range	-40°C - 60°C

SPECIFICATION

Backing Thickness mm	1.0, 1.2, 1.5	Example	3CS 550/2.5
Adhesive Thickness mm	0.8, 1.0, 1.5, 2.0	3CS	3C Heat shrinkable wrap-around sleeve
Sleeve Width mm	450, 500, 550, 600	550	Sleeve width, mm
Pipe Diameter	DN80 DN1200	2.5	Sleeve total thickness, mm
Width 400-750 mm are available, please note when make order		Closure patch is pre-attached	

ORDER INFORMATION

PROPERTIES

Property	Test Method	Typical Value
PE Backing		
Tensile Strength	ASTM D 638	22MPa
Elongation	ASTM D 638	550%
Dielectric Strength	ASTM D 257	30MV/m
Volume Resistivity	ASTM D 257	3X10 ¹⁵ ohm-cm
Heat Shock (225°C, 4hrs)	ASTM D 2671	No cracking, flow, or dripping
Thermal ageing (150°C, 21d)	ASTM D 638	
Tensile Strength		17MPa
Elongation at Break		400%
Visco-elastic Adhesive		
Low Temperature Flexibility	ASTM D2671	<-40°C
Impact Resistance	ISO 21809 3 Annex G	5J/mm
Cathodic Disbondment Resistance @65°C, 28d	ISO 21809 3 Annex F	2mm
Mastic Adhesive		
Low Temperature Flexibility	ASTM D 2671	<-40°C
Lap Shear Strength @23°C	ISO 21809 3	0.15MPa
@60°C	Annex L	0.04MPa
Peel Strength @23°C to Factory Coating	ISO 21809 3 Annex D	22N/cm
Impact Resistance @23°C	ISO 21809 3	10J/mm
Peel Strength after Thermal Ageing: Tmax +20°C @23°C to PE	Annex G	
P_{100}/P_0	ISO 21809 3	0.92
P_{100}/P_{70}	Annex N	0.90

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