

Cold applied tape coating system protecting metal pipelines from high corrosive environment and mechanical stresses. **Guardian Butylwrap 1042-30 / 1055-20 (EN)** complies with DIN 30672, EN 12068, ASTM and AWWA. Its quality performance is tested under DIN 30672 and EN 12068 Class C 50 standards.

Standard designation: EN 12068 C50
DIN 30672 C50

Compatible line coatings: PE, PP, FBE, Bitumen, Epoxy Coatings

Guardian Butylwrap 1042-30 / 1055-20 (EN) System

Guardian Butylwrap 1042-30 / 1055-20 (EN) system consists of:

Guardian Liquid Adhesive

Guardian Liquid Adhesive is the first essential part of the Guardian wrap cold applied tape coating system. It is highly compatible with the butyl rubber formulation of the co-extruded inner coating that provides a smooth uniform coating surface. The never cure tack surface of the Guardian Liquid Adhesive provides ease of application and complete adhesion of the inner layer to steel and butyl rubber. **Guardian Liquid Adhesive** complies with international standards such as DIN 30672, EN 12068, ASTM and AWWA.

Guardian Butylwrap 1042-30 3-Ply Double Adhesive Inner Layer

Guardian Butylwrap 1042-30 inner layer is a two component co-extruded coating consisting of a polyethylene inner layer coated on both sides with butyl rubber adhesive, resulting in a double adhesive for self-adhering results. **Guardian Butylwrap 1042-30** inner layer is recommended for all pipelines that need additional corrosion protection. It allows for a greater cohesive adherence between liquid adhesive, butyl and adhesive of the outer layer. It complies with international standards DIN 30672, EN 12068, ASTM and AWWA.

Guardian Butylwrap 1055-20 2-Ply Outer Layer

Guardian Butylwrap 1055-20 is a co-extruded outer coating of polyethylene and butyl rubber specifically engineered for mechanical protection layer. It provides protection to the inner layer (corrosion protection) from potential hazards due to backfill operations and soil stresses; as well as protection from chemical, biological attack and ultraviolet light. **Guardian Butylwrap 1055-20** complies with international standards DIN 30672, EN 12068, ASTM and AWWA.

Please note that **Guardian Butylwrap 1042-30 / 1055-20 (EN)** system can be applied by hand if it is 50mm width. But strong recommendation is to use Guardian Hand Wrapping Tool (HWT) if the width is greater than 50mm. It will ensure to have appropriate tension with consistent overlap percentage.



PROPERTIES

Guardian Butylwrap 1042-30 3-ply double adhesive inner layer tape
Guardian Butylwrap 1055-20 2-ply outer layer tape

Property	Unit	Guardian Butylwrap 1042-30	Guardian Butylwrap 1055-20	Test Method
Color	-	Black	White	-
Backing material	-	Polyethylene	Polyethylene	-
Adhesive material	-	Butyl rubber base	Butyl rubber base	-
Backing thickness	mm	0.305	0.254	-
Adhesive thickness	mm	0.458	0.330	-
Total thickness	mm	0.763	0.584	ASTM D1000
Tensile strength	Kgf/cm width	7.15	5.90	ASTM D1000
Minimum elongation	%	600	600	ASTM D1000
Dielectric strength	kV/mm	43	-	ASTM D149
Water Vapor trans. % by weight	kg/Pa·s·m ²	3.45 x 10 ⁻¹²	-	ASTM E96
Insulation resistance	M ohm	2.11 x 10 ¹⁰	-	ASTM D257
Normal service range	°C	-40 to 85	-40 to 85	-
Normal application range	°C	-40 to 71	-40 to 71	-

PROPERTIES

Guardian Butylwrap 1042-30 / 1055-20 (EN) cold applied tape coating system

with Guardian liquid adhesive

Property	Unit	Typical Value	Required Value	Test Method
Impact resistance	J	≥15	≥15	EN 12068 C-50
Indentation resistance at 50°C	mm	≥0.8	≥0.6	EN 12068 C-50
Residual resistance				
Specific electrical insulation resistance				
R _S 100	Ωm ²	≥10 ⁸	≥10 ⁸	EN 12068 C-50
R _S 100/R _S 70		≥0.8	≥0.8	
Cathodic disbondment resistance				
at 23°C	Mm	≤5	≤20	EN 12068 C-50
at 50°C		≤13	-	
Peel strength layer to layer				
- inner layer / inner layer				
at 23°C		≥1.8	≥1.5	
at 50°C		≥0.2	≥0.2	
- outer layer / inner layer	N/mm			EN 12068 C-50
at 23°C		≥2.5	≥1.5	
at 50°C		≥0.2	≥0.2	
- outer layer / outer layer				
at 23°C		≥0.4	≥0.2	
at 50°C		≥0.4	≥0.2	
Peel strength				
- to pipe surface				
at 23°C		≥0.78	≥0.75	
at 50°C	N/mm	≥0.09	≥0.075	EN 12068 C-50
- to factory coating PE, Epoxy				
at 23°C		≥0.5	≥0.4	
at 50°C		≥0.06	≥0.04	
Lap shear strength				
- to pipe surface	N/mm ²	≥0.06	≥0.05	EN 12068 C-50
at 50°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.