

# Kebutyl-System C 50-C PRODUCT DATASHEET

- Fully amalgamating overlapping areas
- Forming a sleeve-type coating
- Impermeable to oxygen and moisture
- Resistant to soil stress
- Co-Extrusion technology
- Superior in-ground performance



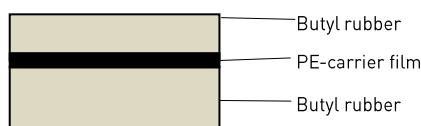
**Kebutyl-System C 50-C** is a two-tape system designed for corrosion protection of pipelines according to EN 12068, DIN 30672 and ISO 21809-3. This **Kebutyl-System** consists of a liquid adhesive **Kebutyl-Primer KIII**, **Kebulen-Tape 1,2 H** 3ply anti-corrosion inner layer and **Kebulen-Tape PE 0,50** mechanical outer layer.

The **Kebutyl-System C 50-C** so called "Ruhrgas System" has been developed in the 1980s together with the technical department of the former Ruhrgas Company. It is a cold applied corrosion protective system used for the coating of buried or immersed steel pipelines. The **Kebutyl-System C 50-C** is used for the site applied coating in the area of the welded seam also for pipeline coating rehabilitation. The inner layer **Kebulen-Tape 1,2 H** produces a strong cohesive bond to the primed steel surface and to the mechanical outer layer. At the spiral overlap it fully amalgamates and forms a sleeve-type coating.

## STRUCTURE

### Kebutyl-System C 50-C

- Kebutyl-Primer KIII
- 2 layers Kebulen-Tape 1,2 H (1 wrap with 50 % overlap)
- 2 layers Kebulen-Tape PE 0,50 (1 wrap with 50 % overlap)



**Kebulen-Tape 1,2 H**  
(inner layer)



**Kebulen-Tape**  
(outer layer)

## COATING

The **Kebutyl-System C 50-C** is compatible with factory coatings of PE, PP, epoxy resin, PU and bitumen. It can be used for **Field Joint Coating, Coating Rehabilitation and Coating Repair.**

## FORMS OF DELIVERY

**Kebutyl-Primer KIII** in Containers of 1 l / 5 l / 10 l

	Length of roll [m]	Width of roll [mm]	Rolls per box	Content of box [m <sup>2</sup> ]
Kebulen-Tape 1,2 H	12,5	30	18	6,75
	12,5	50	12	7,50
	12,5	100	6	7,50
	30 and 40	100	3	9 and 12
Kebulen®-Tape PE 0,50	25	30	18	13,5
	25	50	12	15,0
	25	100	6	15,0
	50 and 70	100	3	15 and 21

## Kebutyl-System C 50-C

Standard classification:

DIN EN 12 068 – C 50, ISO 21809-3, type 12-1 (up to 50°C), DIN 30 672 – C 50



DIN-DVGW-Reg.-Nr.: NV-5180AU0469

Approved by:



Preserving values.

ORIGINAL  
**kebu**®

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## PRODUCT DATASHEET

### PROPERTIES TAPES OF KEBUTYL-SYSTEM C 50-C

Property	Unit	Kebulen-Tape 1,2 H typical values	Kebulen-Tape PE 0,50 typical values	Standard
Backing: colour, thickness	-, mm	black, ≈ 0,2	-, ≈ 0,31	-
Butyl coating				
inner: colour, thickness	-, mm	grey, ≈ 0,55	grey, ≈ 0,15	-
outer: colour, thickness	-, mm	grey, ≈ 0,45	black, ≈ 0,04	-
Total thickness	mm	≈ 1,2	≈ 0,5	-
Elongation at break	%	≥ 450	≥ 750	DIN EN 12068
	%	≥ 440	≥ 780	ASTM D 1000
Tensile strength	N/mm	≥ 4,0	≥ 10	DIN EN 12068 / ASTM D 1000
Hardness (PE-Foil)	Shore D	-	≥ 40	DIN 53505 / ISO 868
Water absorption	%	≤ 0,05	≤ 0,05	DIN EN ISO 62 / ASTM D 570

### PROPERTIES KEBUTYL-SYSTEM C 50-C

Property	Unit	Typical values		Standard
Impact resistance	J J/mm	≥ 19 ≥ 5,0		DIN EN 12068 ISO 21809-3
Indentation resistance		23 °C	50 °C	
pressure (10 N/mm)		10	10	DIN EN 12068
residual layer thickness	mm	≥ 1,2	≥ 0,8	ISO 21809-3
Specific electrical insulation resistance $R_{s1000}$	$\Omega \cdot m^2$	≥ 10 <sup>12</sup>		DIN EN 12068
Peel strength		23 °C	50 °C	
- on pipe surface at 10 mm/min	N/mm	≥ 2,0	≥ 0,3	DIN EN 12068 / ISO 21809-3
- on factory coating at 10 mm/min	N/mm	≥ 2,0	≥ 0,3	DIN EN 12068 / ISO 21809-3
- outer to inner tape at 100 mm/min	N/mm	≥ 3,0	≥ 0,3	DIN EN 12068
- outer to inner tape at 300 mm/min	N/mm	≥ 15,0	≥ 1,5	ASTM D 1000
- after 28 d in water (50°C)				
- on pipe surface	N/mm	≥ 2,0	≥ 0,3	ISO 21809-3
- on factory coating	N/mm	≥ 2,0	≥ 0,3	ISO 21809-3
- tape / tape at 100 mm/min				
- Kebulen-Tape 1,2 H	N/mm	≥ 3,0	≥ 0,4	DIN EN 12068 / ISO 21809-3
- Kebulen-Tape PE 0,50	N/mm	≥ 1,6	≥ 0,3	DIN EN 12068 / ISO 21809-3
Cathodic disbondment resistance	mm	23 °C	50 °C	
		≤ 4,0	≤ 11	DIN EN 12068 / ISO 21809-3
Lap shear strength at 10mm/min		23 °C	50 °C	
- to pipe surface	N/mm <sup>2</sup>	≥ 0,15	≥ 0,05	DIN EN 12068 / ISO 21809-3
- to PE/PP-factory coating	N/mm <sup>2</sup>	≥ 0,15	≥ 0,05	DIN EN 12068 / ISO 21809-3

### COMPLEMENTARY PRODUCTS

**Kebutyl Mastic:** None curing, permanently plastics butyl rubber putty, easy to form, for the padding of uneven surfaces.

**Kebu Rockshield:** Additional mechanical protection (non-woven PP) for coated pipes and valves or for buried plastic.

**KEBUMat wrapping tool for the manual application:** Simplify the helical wrapping of pipes & bends (homogeneous wrapping tension, overlapping adjustment).

The information given in this publication is based on our knowledge and experience. The hints and instructions for use given therein have been compiled to the best of our knowledge on the basis of our tests and experience. Best results will be obtained if our products are used in a proper and expert way. Any protected rights and existing laws and regulations must be complied with the recipient. In all other respects our general terms and conditions shall apply.

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