

# PRODUCT DATA SHEET

## ORIGINAL **kebu**® Kebutyl-System C 50 C



The Kebutyl-System C 50 C is a cold applied two-tape system designed for corrosion protection of pipelines according to DIN EN 12068 (class C 50), DIN 30672 (class C 50) and ISO 21809-3 type 12A-1 ( $T_{max}$  50°C). It consists of the adhesion-promoting Kebutyl-Primer K III, the 3ply Kebulen-Tape 1.2 H (inner layer) and the Kebulen-Tape PE 0.50 (outer layer). The Kebutyl-System C 50 C fulfils the requirements of load class C at a maximum continuous operating temperature of 50°C.



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

### ■ STRUCTURE

Kebutyl-Primer K III

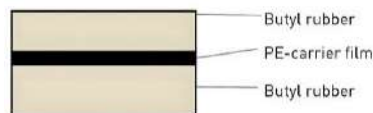
2 layers 3ply Kebulen-Tape 1,2 H - (1 wrap with 50 % overlap)

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

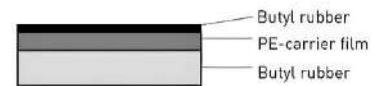
#### Kebutyl-Primer K III



#### Kebulen-Tape 1,2 H



#### Kebulen-Tape PE 0,50



### ■ SPECIAL ADVANTAGES

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

### ■ AREA OF APPLICATION



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.

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

Forms of delivery	Length of roll (m)	Width of roll (mm)	Rolls per Box	Content of box (m²)
Kebulen-Tape 1,2 H	12,5	30	18	6,75
	12,5	50	12	7,5
	12,5	100	6	7,5
	30 and 40	100	3	9 and 12
Kebulen-Tape PE 0,50	25	30	1	13,5
	25	50	12	15,0
	25	100	6	15,0
	50 and 70	100	3	15,0 and 21
Kebutyl-Primer K III	in containers of 1l / 5l / 10l			

## ■ 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, ≈ 0,5	grey, ≈ 0,5	---
outer: colour, thickness	-, mm	grey, ≈ 0,5	black, ≈ 0,04	---
Total thickness	mm	≈ 1,2	≈ 0,5	---
Elongation at break	%	≥ 450	≥ 750	DIN EN 12068 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			
pressure (10 N/mm)	mm	23°C 50°C 10,0 10,0	DIN EN 12068
residual layer thickness		≥ 1,2 ≥ 0,8	ISO -3
Specific electrical insulation resistance R <sub>s1000</sub>	Ω.m <sup>2</sup>	≥ 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
-on factory coating at 10 mm/min	N/mm	≥ 2,0 ≥ 0,3	ISO 21809-3
-outer to inner at 100 mm/min	N/mm	≥ 3,0 ≥ 0,3	DIN EN 12068
-outer to inner at 300 mm/min	N/mm	≥ 15,0 ≥ 1,5	ASTM D 1000
-after 28 d in water (50°C)	N/mm	≥ 2,0 ≥ 0,3	ISO 21809-3
-on pipe surface	N/mm	≥ 2,0 ≥ 0,3	
-on factory coating			
-tape / tape at 100 mm/min	N/mm	≥ 3,0 ≥ 0,4	DIN EN 12068
- Kebulen-Tape 1,2 H	N/mm	≥ 1,6 ≥ 0,3	ISO 21809-3
-Kebulen-Tape PE 0,50			
Cathodic disbondment resistance	mm	23°C 50°C ≤ 4,0 ≤ 11	DIN EN 12068 ISO 2180921809-3
Lap shear strength at 10 mm/min		23°C 50°C	
-on pipe surface	N/mm <sup>2</sup>	≥ 0.15 ≥ 0.15	DIN EN 12068
-on PE/PP- factory coating	N/mm <sup>2</sup>	≥ 0.15 ≥ 0.15	ISO 21809-3

## ■ PACKAGING, STORAGE AND TRANSPORTATION

**Packaging:** metal containers / carton box, packing is not returned after use.

**Storage:** in original packaging, in a dry place without load in a horizontal position, in warehouses, open areas under a canopy, protected from sunlight and atmospheric precipitation. When storing the **Kebutyl-System C 50 C** and transporting it to the work site, store and transport in an upright position, no more than six rows - boxes with tape, and three rows - containers with primer. Transportation and storage at a distance of at least 1 m from heat sources.

Shelf life in original packaging is ≥24 months from the date of manufacture.

Storage temperature: min -10°C, max +50°C.

**Transportation:** on/without pallets, in original packaging, by all means of transport.

## ■ RELATED PRODUCTS

### KEBUmat

The KEBUmat "Mini" is specifically designed for the tape application at limited space conditions. It's suitable for pipes with a small nominal size DN 40.



### KEBUmat

The KEBUmat "ST" is suitable for a variety of applications. It facilitates and accelerates the coating of straight pipes from DN 80 and pipe bends from DN 100.



### KEBUmat

The KEBUmat "GR" allows the use of larger rolls of tapes for pipes up to DN 1400. The tapes have a maximum width of 150 mm and a roll diameter of 300 mm.



## ■ CONSULT WITH US FOR SPECIFIC PROJECTS OR UNIQUE OFFERINGS

The product information shown here our application recommendations and other product related documents are made for your convenience only. Since many installation factors are beyond our control, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection therewith.

All information contained in this document is to be used as a guide and does not constitute a warranty of specification. The information contained in the document is subject to change without notice.

For this reason, no liability can be accepted for inaccurate advice or any failure to provide advice. The user is responsible for checking the applications of the product and verifying its suitability for the intended use.

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The legal relationship shall be governed by Polish law.

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