



# POLYKEN C50

## COATING DESCRIPTION

POLYKEN C50 is a multilayer coating. The letter C means a mechanical resistance class, according to EN12068 and DIN 30672 (2004). The number 50 indicates that the temperature of continuous working operation of this coating should not exceed 50°C.

### Coating designation according to EN12068 – C50

The basic structural layers comprise of primer filler (primer), corrosion protection tape. Sublayers are created within the structural layers by applying tapes with overlaps.

The POLYKEN C50 system is used mainly for the insulation of transmission steel pipelines (straight and arched sections of pipelines, fitting), tanks and other cylindrical objects.

## COATING STRUCTURE

Type of coating	Primer filler	Basic corrosion protection layer, overlap	Mechanical protection layer, overlap
POLYKEN C50	Primer POLYKEN 1027	POLYKEN 942-30, 1×50%	POLYKEN 955-28, 1×50%

## COATING PROPERTIES

Parametry	Jednostki	Wartości	Test method
Total thickness	mm	2,94	-
Adhesion to primed steel	N/mm	6,4	ASTM D1000
Cathodic disbondment	mm	23°C 50°C < 5 7	ISO 21809-3 EN12068
Unit resistivity	Ωm <sup>2</sup>	≥ 10 <sup>11</sup>	EN12068
Impact resistance	J	> 15	ISO 21809-3 EN12068

## USAGE

Apply the tape spirally in individual layers, manually or mechanically (e.g. using the OWR-2 wrapping machine) with preload (tension) that causes the tape to decrease its width by 1-2%. Apply the corrosion protection tape ((POLYKEN 942-30) with the black inner layer on a surface prepared to the grade of cleanliness according to Sa 2 ½ (allowed St 3), dry and degreased covered with the POLYKEN Primer 1027, finished to dust-free condition. Temperature of the insulated surface should be at least 3°C higher than the dew point.

The primer must be thoroughly mixed before using. NOTE! This material is flammable! When applying indoors, ensure efficient ventilation. Before application condition the tape at 10 ÷ 25°C.

When applied, the coating should be smooth with no wrinkles or air bubbles. Overlaps should be equal.

Approximately an hour after applying the coating, a pressed out, adhesive layer (the adhesive) should be visible at the edges of the mechanical protection tape, as a result of proper tension.

To **cover sharp** objects (T-connectors, valves etc.) or to **fill cavities** of the coating (e.g. when repairing), always use the plastic filling mass BUTYLMASTIK, provided in cubes (briquettes) of 1 kg.

To soften the bulge of the weld face, use the above-mentioned mass in the form of 3 mm thick and 60 mm wide tape.

**Apply BUTYLMASTIK to a surface protected with primer.**

Check tightness of coating using a holiday detector with test voltage 5kV/mm of the coating thickness, however not higher than 15kV (EN 12068).

## COATING CONSUMPTION & SIZE AVAILABLE

Tape	Dimensions (width, mm/length, m)	Tape surface in the roll, m <sup>2</sup>	Tape wear (consumption) per 1m <sup>2</sup> of the insulated surface
POLYKEN 942-30	50 × 15	0,75	2 m <sup>2</sup>
	100 × 30	3,00	2 m <sup>2</sup>
POLYKEN 955-28	50 × 15	0,75	2 m <sup>2</sup>
	100 × 30	3,00	2 m <sup>2</sup>

**Primer consumption:** 0,1 L/m<sup>2</sup> of the protected surface.

The primer is provided in 1-litre cans.

Tapes 100 mm width should be applied by hand wrapping machines OWR-2.

The diameter of a standard roll core is 76 mm.