

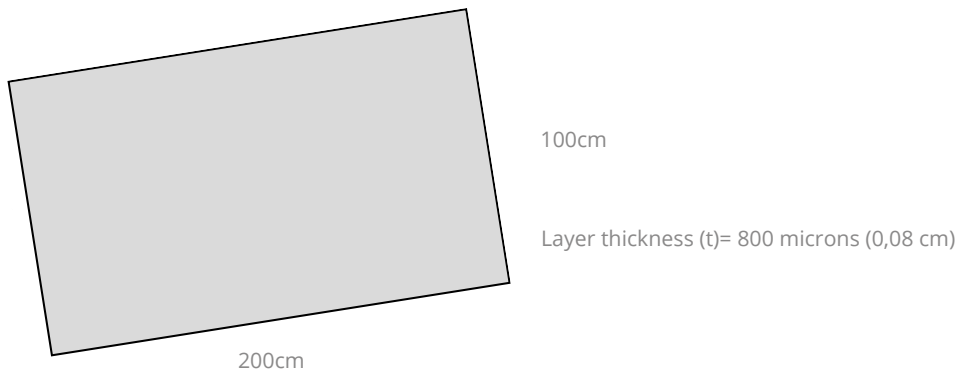
## How to calculate

### Coating a surface

Coating can be done on a flat surface, or a bended surface (pipe, round tank etc.).

Layer thickness has to be decided, prior to coating a surface. For a coating, Wencon recommends 600-800 microns (0.6 - 0.8 mm). To calculate the consumption of Wencon Coating, use the examples shown below.

#### Example 1: Coating a flat surface



Volume of coating = 200 cm x 100 cm x 0,08 cm = 1600 cm<sup>3</sup>

Specific volume of Wencon Coating Blue or Wencon White

1 kg = 745 cm<sup>3</sup>

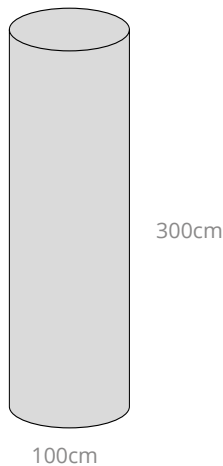
$$\frac{1600 \text{ cm}^3}{745 \text{ cm}^3} = 2,15 \text{ kg}$$

Theoretical value is 2.15 kg. There is a calculated waist (mixing, potlife, variation in layer thickness etc.) In practice you have to multiply with a waistfactor varying from 1.2 to 2 according to your own experience.

In our documentation we calculate with a waste of 25 % This means that when the theoretical coverage in 600 micron is 0,8 kg/m<sup>2</sup>, the practical coverage will be 0,8kg/m<sup>2</sup> + 25% = 1 kg/ m<sup>2</sup>.

## How to calculate

### Example 2: Coating a tank



Layer thickness (t) 800 microns (0,08 cm)

#### Cylinder part:

$$2 \times \pi \times r \times h \times t = 2 \times 3,14 \times 50 \times 300 \times 0,08 = 7536 \text{cm}^3$$

#### Top and bottom plates:

$$\pi \times r^2 \times 2 \times t = 3,14 \times 50^2 \times 2 \times 0,08 = 1256 \text{ cm}^3$$

Total coating volume is  $7536 \text{ cm}^3 + 1256 \text{ cm}^3 = 8792 \text{ cm}^3$

Specific volume for Wencon Coating 1 kg =  $745 \text{ cm}^3$

$$\text{Consumption} = \frac{8792 \text{ cm}^3}{745 \text{ cm}^3} = 11,8 \text{ kg (theoretical)}$$

In practice  $11,8 \text{ kg} \times 1,25$  (or other weightfactor - see x 1) =  $14,75 \text{ kg}$

### Example 3: Coating a pipe outside - examples calculated per m pipe

Below is a table showing the theoretical consumption of Wencon Reinforcement Tape and Wencon blue / white coating at different pipe diameters, applying 3 rounds or 5 rounds of Reinforcement Tape. All values calculated per m pipe.

The same table can be used for Wencon HiTemp Coating and Wencon UW Coating by adding 8 % to the consumption of blue/white coating.

Important: The shown values are theoretical, and you have to multiply with a waste factor (1,2 - 2 according to your own experience) to reach the practical consumption.

| Pipe diameter  | 3 Rounds        | 5 Rounds        |
|----------------|-----------------|-----------------|
| 1 mtr x 20 mm  | 0,13 kg - 8 m   | 0,22 kg - 13 m  |
| 1 mtr x 30 mm  | 0,20 kg - 12 m  | 0,32 kg - 19 m  |
| 1 mtr x 50 mm  | 0,32 kg - 19 m  | 0,53 kg - 32 m  |
| 1 mtr x 60 mm  | 0,38 kg - 23 m  | 0,64 kg - 38 m  |
| 1 mtr x 70 mm  | 0,45 kg - 27 m  | 0,74 kg - 44 m  |
| 1 mtr x 80 mm  | 0,51 kg - 31 m  | 0,85 kg - 51 m  |
| 1 mtr x 90 mm  | 0,57 kg - 34 m  | 0,95 kg - 57 m  |
| 1 mtr x 100 mm | 0,64 kg - 38 m  | 1,10 kg - 63 m  |
| 1 mtr x 120 mm | 0,76 kg - 46 m  | 1,30 kg - 76 m  |
| 1 mtr x 160 mm | 1,02 kg - 61 m  | 1,70 kg - 101 m |
| 1 mtr x 200 mm | 1,30 kg - 76 m  | 2,10 kg - 126 m |
| 1 mtr x 250 mm | 1,60 kg - 95 m  | 2,70 kg - 157 m |
| 1 mtr x 300 mm | 2,00 kg - 113 m | 3,20 kg - 189 m |