

## THE REAL COST OF PAINT

What is the **REAL** cost of painting an item? The cost per can, cost per litre, or cost per kg?

**The real cost of painting a substrate (surface) is what it costs to paint the finished item per m<sup>2</sup>, not the price per can.**

Paint (coating) is usually purchased in litre e.g. 5lt can. In order to calculating the finished cost of painting an item, it is vital to know the Volume Solids (VS) of the coating.

How do you calculate the real cost of painting a substrate per m<sup>2</sup>?

### You need to know the following:

1. **Volume Solids (VS).** This information is available on Dura Paints Technical Data Sheet (TDS). See [www.durapaints.co.za](http://www.durapaints.co.za) then select Product.
2. **Dry Film Thickness (D.F.T).** How thick do you want the coating to be? One, two or three coats? The more coats the greater the protection of the substrate (surface). DFT should be specified by the customer or referenced on the Product Technical Data Sheet. DFT is measured in Microns: (1 Micron = 1 000th of an mm).
3. Cost of the paint per litre (Price list).

**Example:** How much paint do I need to coat 50 m<sup>2</sup> of smooth steel with one coat of QD Enamel White if I require a DFT of 35 microns? QD Enamel White has Volume Solids of **29%** and a cost of **R100 per 5lt**.

First calculate how many m<sup>2</sup> per lt you will get at a DFT of 35 microns.

$$\text{Formula} = \frac{\text{VS} \times 10}{\text{DFT}}$$

$$= \frac{29 \times 10}{35} = 8.28 \text{ m}^2/\text{lt.}$$

Therefore to coat 50m<sup>2</sup> you require:

$$\frac{50}{8.28} = \underline{\underline{\mathbf{6 \text{ lt of paint to coat } 50 \text{ m}^2 \text{ of steel at } 35 \text{ microns.}}}}$$

How much is it going to cost me if 5lt of QD Enamel White costs R100/5lt?

$$\frac{\text{R}100}{5} = \text{R}20 \text{ per lt.}$$

**Therefore: 6 lt of paint x R20 per lt = R120.00 to paint 50m<sup>2</sup> @ 35 microns DFT, per coat.**

**Now** the same question, but I want to use an alternate product such as AUTOCOTE which has a higher price per can. How much paint do I need to coat 50 m<sup>2</sup> of smooth steel with one coat of Autocote Enamel White if I require a DFT of 35 microns? Autocote White has a Volume Solids of 38% and a price of R117.00 per 5 lt can.

$$\text{Formula} = \frac{VS \times 10}{DFT}$$

$$\frac{38 \times 10}{35} = 10.8 \text{m}^2/\text{lt}$$

Therefore to coat 50m<sup>2</sup> you require:

$$\frac{50 \text{ m}^2 \text{ of steel}}{10.8} = \underline{\underline{4.6 \text{ lt of paint to coat } 50 \text{ m}^2 \text{ of steel at } 35 \text{ microns.}}}$$

5lt of Autocote costs R117 per 5lt.

$$\frac{R117}{5} = R23.40 \text{ per lt}$$

**Therefore: 4.6lt of paint x R23.40 per lt = R107.64 to paint 50m<sup>2</sup> @ 35 microns DFT, per coat.**

#### Summary

	<b>QD Ename White</b>	<b>Autocote White</b>
Price per 5 lt can	R100	R117
Volume Solids	29%	38%
Cost to paint 50m <sup>2</sup> @ 35 microns DFT	R120.00	107.64

**As can be seen from the above examples, the cost of painting a substrate has nothing to do with the cost of the can of paint and everything to do with the cost per m<sup>2</sup> of painting the final product. In the above examples, the cheaper can of paint cost more to paint a m<sup>2</sup> of steel than the more expensive can.**

The above calculation is *per coat* and is theoretical. Add between 10%- 30% for wastage to get to a PRACTICAL value i.e. painting smooth walls or spraying fencing posts. The type of equipment used to apply the coating also has a significant effect on wastage i.e. a Pressure Pot or Airless Spray system is far more efficient than a cheap conventional air spray gun.

For further information on reducing the cost of painting a substrate and new Lead in Paint Legislation, see The Advantages of Industrial Water-based Primers and Top Coats at:

<https://durapaints.co.za/accreditation/> / <https://durapaints.co.za/brands/dura-industrial/>