

SBQ2423

Cost Studies – Lecture 13

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Lecture Topic

PAINTING WORK



Introduction

- There are several types of paints namely;

Paint Type	Description
Ready-mixed paints	come in finished products
Coloured pigments	colour pigments are added to paints to produce the desired colour by clients
Turpentine	used to thin oil paints to help the painting works
Varnish	applied to produce hard transparent surfaces
Shellac	applied as coating before painting to timber
Stains	applied to surfaces of wood to produce desired colour and texture
Putty	applied before priming coat of paint or to cover wall cracks or uneven surfaces

Paint Coverage

Generally paint coverage is affected by:

- Receiving surface
- Types of paint
- Application methods
- Degree of dilution



Paint Coverage (Example)

Material (Applied on wood)		Surface area covered: sf/gal
Prime-coat paint		450-550
Oil base paint		450-550
Latex paint		450-550
Varnish, flat		500-600
Varnish, glossy		400-450
Shellac		600-700
Enamel paint		500-600
Aluminum paint		550-650
Oil stain on wood		500-700
Oil paint on floors		400-500

Paint Coverage (Example)

Types of Paint	Paint Coverage per coat (M ² / Liter)		
	Primer/ sealer	Undercoat	Finish Coat
Emulsion Paint (Commercial Grade)	10.0		11.0
Emulsion Paint (Acrylic) (1 st Grade)	10.0		12.0
Oil-based Paint (Alkyl Resin)	14.0	14.0	16.0

Note: Coverage of paint is based of application method using brushes



Painting

- The coverage of paint per liter and labour constants is very depending on the application methods.
- Quality of paint work also according to the methods of application.

	Roller	Brush	Spray/ Gun
Speed	Fast	Moderate	Moderate
Cost	Low	Moderate	High
Quality	Low	Moderate	Good



Labour Constants

Methods of Application	Labour Constants per coat (min/M ²)	
	Wall	Ceiling
Roller	4 min	5 min
Brush	7 min	8 min
Spray gun	6 min	8 min

Painting work

Determine the unit rate per square metre (M^2) of emulsion paint to plastered wall consist of 1 sealer coat and 2 finishing coats of emulsion paint using roller basing on the following information:

- Price of sealer/5 liters is at RM57.00/ 5 liters and 1st Grade emulsion paint at RM60.00/ 5 liters
- Cost of roller per coat per M^2 of paint work is RM 0.01
- Paint coverage shall base on manufacturer's recommended
- Daily wages of painter is RM60.00 per 8-hour-day

Computation of material cost

Cost of sealer per 5 liters = RM57.00

Cost per liter of sealer = RM11.40

Coverage of paint per liter = 10 M²

Cost of sealer per M² = RM1.14

Cost per 1st Grade Emulsion paint per litres = RM 60.00

Cost per litre of 1st Grade Emulsion = RM12.00

Coverage of paint per litre = 12 M²

Cost of per coat of 1st Grade Emulsion per M² = RM1.00

Cost of paint materials per M² = 1 sealer coat + 2 Finishing Coats
= RM1.14 + 2 x (RM1.00)
= RM3.14

Computation of Unit Rate

Cost of material per M ²	= RM3.14
Add Wastage 5%	= RM0.16
	<u>RM3.30</u>
Add Cost of roller	= RM0.01
	<u>RM3.31</u>
Cost of labour per M ²	= RM1.59
	<u>RM4.90/ M²</u>

Cost of Paint Work per M² = RM4.90

END OF LECTURE

