

Faktor-faktor yang mempengaruhi warna

- Lingkungan
- Produk
- Aplikasi
- Peralatan



DuPont Refinish

COLOUR MATCHING

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Faktor-faktor yang mempengaruhi warna

Kondisi-kondisi lingkungan

terang

gelap



SUHU



CUACA



KEC. UDARA

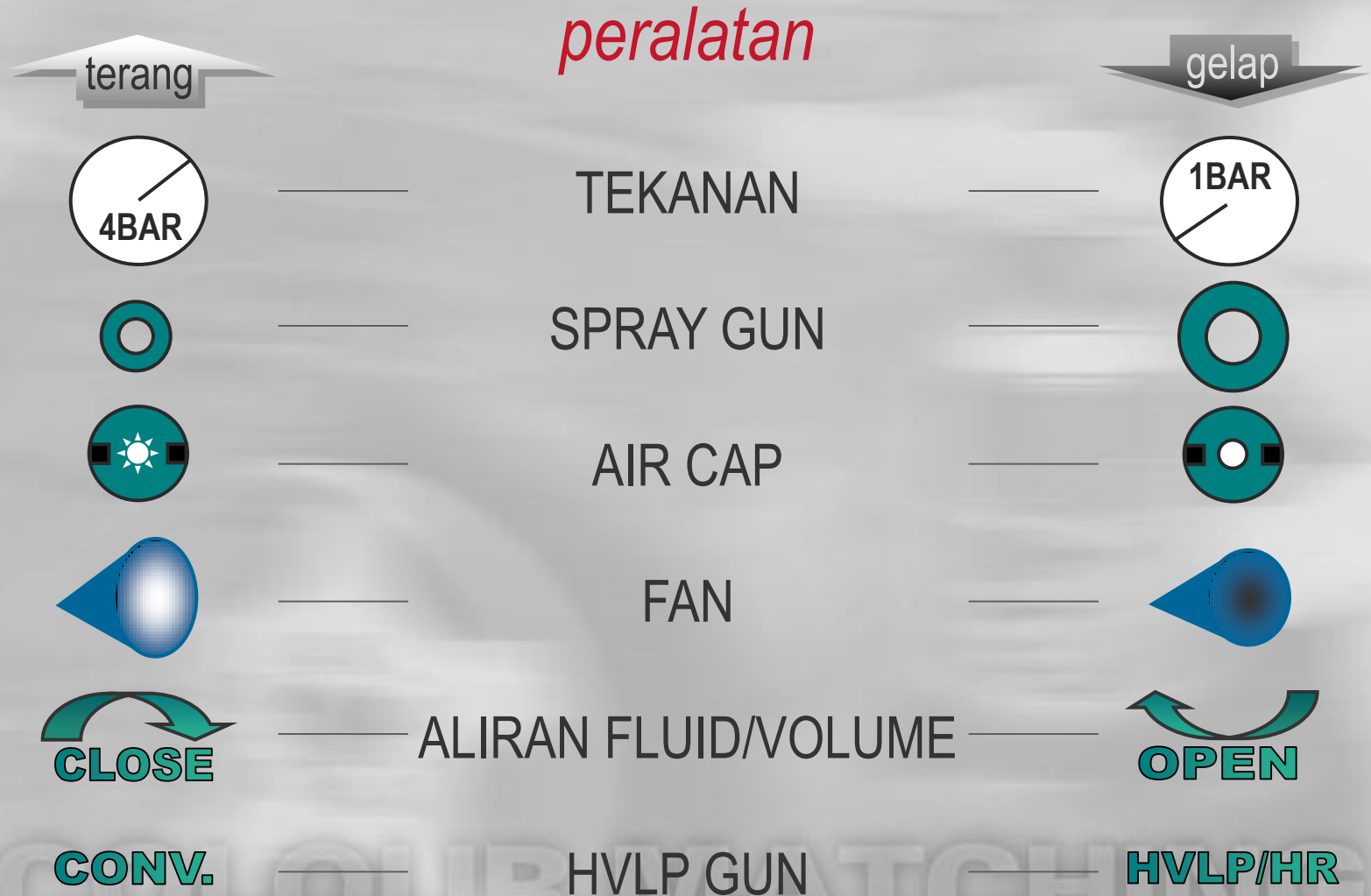


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OUR MATCH

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Faktor-faktor yang mempengaruhi warna

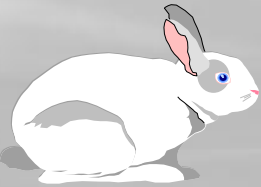


Faktor-faktor yang mempengaruhi warna

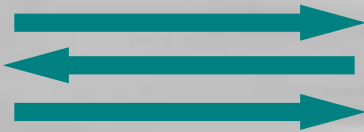
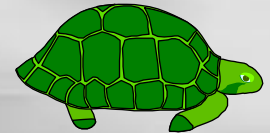
terang

*mempengaruhi tampilan warna
dan orientasi dari flake-flake metal / mica*

gelap



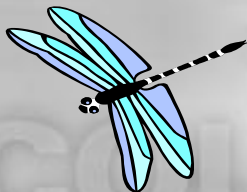
KECEPATAN



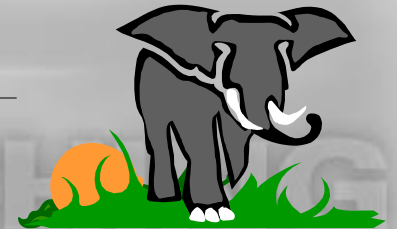
OVERLAPPING



THINNER



TEBAL FILM



COLOUR MATCHING



Faktor-faktor yang mempengaruhi warna

faktor-faktor lainnya



KEKENTALAN



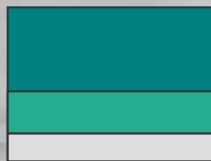
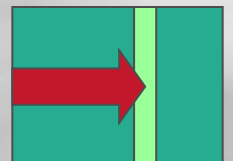
LONG

WAKTU FLASH

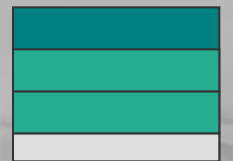
SHORT



JARAK



JUMLAH LAPISAN



Infra-Red Drying

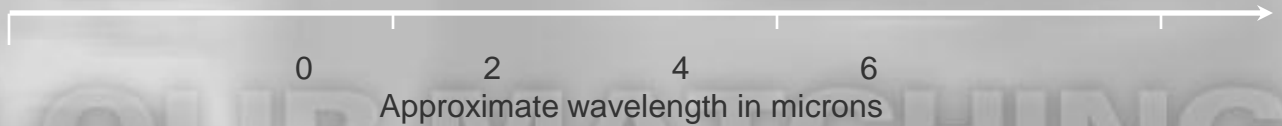


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The Infra-Red Spectrum



COLOUR MATCHING

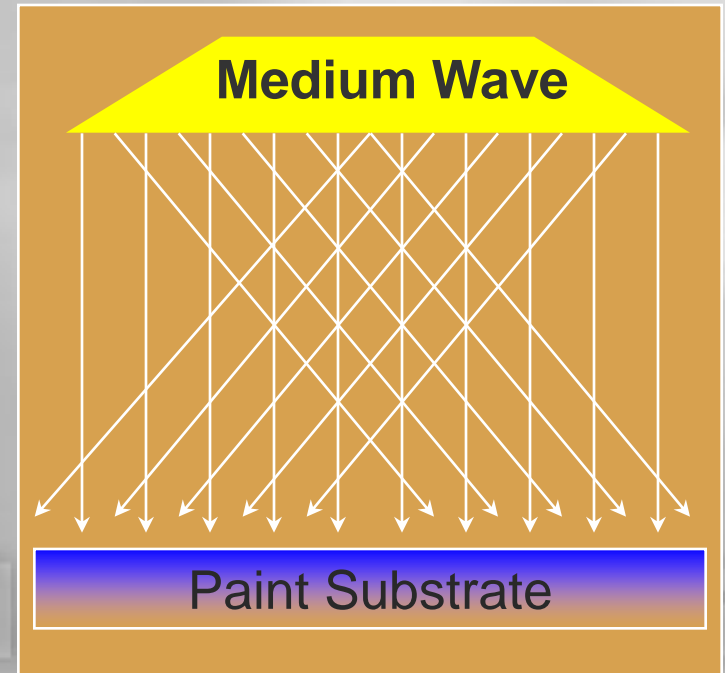
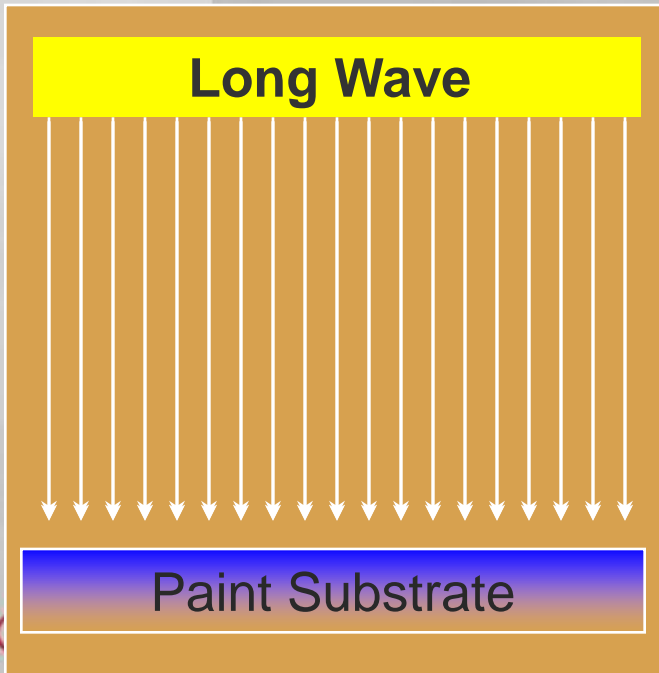


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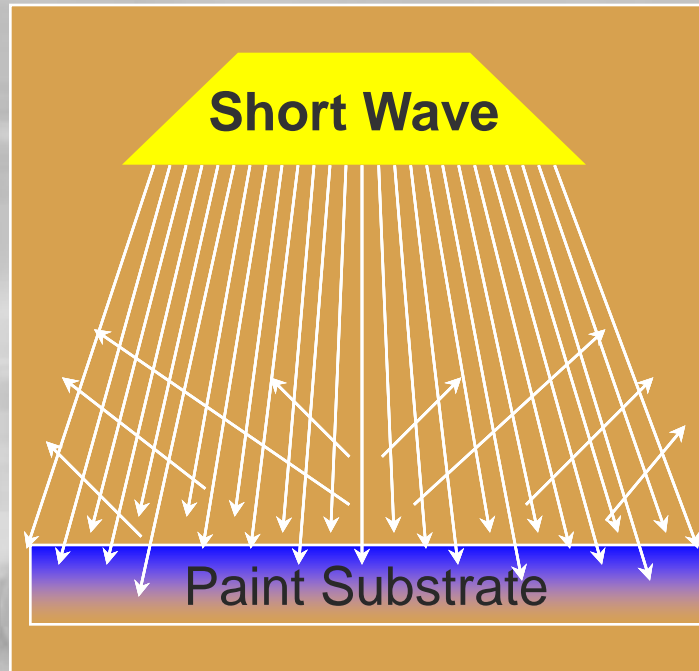
IR Equipment

IR Wavelength Comparison



IR Equipment

IR Wavelength Comparison cont



IR Equipment Advantages



4Better workshop productivity

4Faster through drying

4Time saving

4lower energy consumption

4Greater economy

4Increased profit



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IR Equipment performance

Long wave ?
Medium wave ?
Short wave ?

4The shorter the waveband,
the higher the temperature
produced

4The difference in the wave forms is
the depth of penetration through
the paint film

4Short wave has greater penetration
than medium or long wave



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Long Wave IR Equipment



The most commonly used type for drying materials such as :-

4Inks

4Textiles

4Adhesives

Not recommended for:- Paint drying due to slow heating times and can give skinning of the paint film producing solvent blisters



Will not penetrate the paint film. Surface drying only!

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Medium Wave IR Equipment

4Penetrates further into the paint film

4More efficient than long wave IR can reach a higher temperature than long wave

4Less critical than long wave regarding blistering, due to the slow increase of metal temperature

4Normally needs no flash off time



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Short Wave IR Equipment



- 4 **Penetrates the paint film**
- 4 **More efficient than medium wave**
- 4 **Can reach a higher temperature**
- 4 **Faster than medium wave**
- 4 **Has a flash off to remove solvents**
- 4 **This gives security against blistering**

Short wave is considered to be the most efficient form of IR drying available today



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Time studies for Waterborne Basecoat

Spot repair

SPOT REPAIR		Air drying	IR	Low-bake	Blowing
		Conventional Basecoat	Water-borne Basecoat		
spray pass 1 & 2	0,5mm				
1st drying	6-7min				
spray pass 1 & 2		0,5min	0,5min	0,5min	0,5min
2nd drying		15min	4-8min	5-10min	6-8min
cooling time			5-6min	5-6min	
TOTAL	6-7min	15min	9-14min	10-16min	6-8min



Recorded at normal conditions 22°C 30% - 35% relative humidity

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Time studies for Waterborne Basecoat

Part repair

Partial Repaint	Air drying	IR	Low-bake	Blowing	
	Conventional Basecoat	Water-borne Basecoat			
spray pass 1 & 2	4mm				
1st drying	10min				
spray pass 1 & 2		4min	4min	4min	0,5min
2nd drying		20min	4min	5-10min	6-8min
cooling time			5-6min	5-6min	
TOTAL	14min	24min	14min	14-19min	10-12min

Recorded at normal conditions 22°C 30% - 35% relative humidity

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Time studies for Waterborne Basecoat

Overall repair

Overall repair	Air drying	IR	Low-bake	Air Nozzle
	Conventional Basecoat	Water-borne Basecoat		
spray pass 1 & 2	12mm			
1st drying	10-15min			
spray pass 1 & 2		12min	12min	12min
2nd drying		20-30min	10min	15min
cooling time			5-6min	5-6min
TOTAL	22-27min	32-42min	27-28min	32-33min

Recorded at normal conditions 22°C 30% - 35% relative humidity

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