

<b>Section 3: FTIR Test Details (as per ASTM D7588)</b>				
Analyst/Company Name				
Brand & Model of FTIR				
ATR Crystal Material				
Spectral Correction (e.g. automatic baseline correction)				
Spectral Range (cm <sup>-1</sup> )				
No. of Sample Scans (min 32)				
Resolution (min 4 cm <sup>-1</sup> )				
Correlation search algorithm for matching % in absorbance mode	<b>Note:</b> Correlation search algorithm of the FTIR software must depend on both <i>x</i> - (wavenumber) and <i>y</i> - (absorbance) vectors.			
	Dependence on <i>x</i> -vector (wavenumber / cm <sup>-1</sup> )	YES / NO	Dependence on <i>y</i> -vector (absorbance / a.u.)	YES / NO
Trade name and batch number of reference spectrum for Base Material (Epoxy)				
Trade name and batch number of reference spectrum for Curing Agent (Hardener)				

**Note:**

1. Full range of FTIR spectra for both Base and Hardener after automatic baseline correction and in absorbance mode are to be attached with this report (raw data).
2. Compliance to matching criteria values does not exclude meeting the requirements of other QA/QC checks e.g. drying time, gloss, hiding power etc.
3. Methods used shall reference latest published documents.
4. Authorised QA/QC Executive,  
[Signature & Date]

**INDICATIVE COSTING FOR FTIR FINGERPRINTING ON COSTINGS FINGERPRINTING**

The Task Force on Coatings Fingerprinting has calculated an indicative costing for the testing of paint batches using the FTIR method as follows:-

**Option 1 (Paint Manufacturer In-house Laboratory)**

Cost of FTIR-ATR equipment = RM150,000.00 amortized over 10 years  
 Durability = RM15,000.00 per year.  
 Annual equipment maintenance cost = RM2,000.00  
 Laser source replacement every 3 years = RM2,000.00 per year equivalent.  
 One technician cost = RM24,000.00 per year.  
 Airconditioning & electricity = minimal impact.  
 Total cost per year = RM43,000.00  
 Average paint production per year = 2,000,000 litres.  
 Average number of paint production batches per year = 2,000.

**Testing cost per batch = RM21.50**  
**Testing cost per litre = RM0.02 i.e. 2 sen.**

**Option 2: Testing by 3<sup>rd</sup> Party Laboratory**

Universities / SIRIM / Private Laboratories = RM100.00 per sample.  
 Based on smallest batch size of 1,000 litres,  
 cost per litre = **RM0.10 i.e. 10 sen.**

**NEW FACE IN MTE**



Ainil Fidrah Mohd Ghazali is the new Manager – Conference, Events & Publications Division in Material Technology Education (MTE) Sdn Bhd. She has over 17 years of work experience in various companies in various industries. Being a global professional she has vast experience of working at Japanese MNCs based in Malaysia as well as in Japan. Her work experience were mostly related to project management and some of the industries that she has served were manufacturing, foreign government institution, Business Process Outsourcing and education consultancy. She is well versed in Japanese Language as well as Japanese Culture. Her skills includes project management, data analysis, training development and Japanese language interpretation as well as translation. She’s an avid outdoor person who loves nature and adventurous activities .

# MATERIALS IND

April - June 2014

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HIGHLIGHTS



9<sup>th</sup> INTERNATIONAL MATERIALS TECHNOLOGY  
CONFERENCE & EXHIBITION  
10-12 MAY 2014 • KUALA LUMPUR, MALAYSIA

EXHIBITOR LIST

EXHIBITOR NAME	EXHIBITOR NAME	EXHIBITOR NAME	EXHIBITOR NAME
1. ABB	11. HANSON	21. SINOPEC	31. YAMATO
2. AEG	12. HANSON	22. SINOPEC	32. YAMATO
3. AEG	13. HANSON	23. SINOPEC	33. YAMATO
4. AEG	14. HANSON	24. SINOPEC	34. YAMATO
5. AEG	15. HANSON	25. SINOPEC	35. YAMATO
6. AEG	16. HANSON	26. SINOPEC	36. YAMATO
7. AEG	17. HANSON	27. SINOPEC	37. YAMATO
8. AEG	18. HANSON	28. SINOPEC	38. YAMATO
9. AEG	19. HANSON	29. SINOPEC	39. YAMATO
10. AEG	20. HANSON	30. SINOPEC	40. YAMATO



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