

Test Report

Customer Name: SCIB

Date: 22/7/2022

Paint system		DFT
1 st coat	Smart Care Apcocoat Epoxy WB 74 Sealer	50μ
2 nd coat	Smart Care Apcocoat Epoxy WB 219 Top coat	2X50 μ
Total DFT		150 μ
Nature of substrate	Concrete	
Room Temperature	23 C	
Relative Humidity	50%	

Test results

NO.	Test	Results	Test method
1-	Volume solid - Smart Care Apcocoat Epoxy WB 74 Sealer - Smart Care Apcocoat Epoxy WB 219 Top coat	43 % 47%	ISO 3233-2
2-	Abrasion resistance @1000 cycles	142mg	ASTM D4060-19
3-	Stain resistance	Pass	ISO 11998:2006
4-	Pull off	3.1MPa	ASTM D4541

NO.	Test	Results	Test method
5-	Chemical Resistance	No Blistering , softening or disbanding observed	ASTM D543- 20
	Acetic acid 2%		
	Sulfuric acid 10%		
	Sodium hydroxide 15%		
	Lactic acid 2%		
	Hydrochloric acid 5%		
	Nitric acid 5%		
	Deiseal oil		
	Salt water 10%		

Conclusion:

The water base epoxy system

* Smart Care Apcocoat Epoxy WB 74 Sealer 1st coat

* Smart Care Apcocoat Epoxy WB 219 Top coat 2nd coat

It passed the above tests and is accepted to apply on a concrete substrate.



SPC Director

Prof. Dr. Ashraf EL-said

Ashraf EL-said
20-12-2022

Test Results

For Smart Care APCoat 219 WB Epoxy

Customer: SCIB

Date: 8-6-2023

FTIR analysis for the scip samples A, B and mix. C are carried out according to international standard methods

The results of spectrum in the following shapes are indicated that the all sample having broad band at $3753, 3332.29 \text{ cm}^{-1}$ for compound (A), It's for amino groups $-\text{NH}$, $\text{H}-\text{N}-\text{C}=\text{O}$, 3374.11 cm^{-1} for amino group $-\text{NH}-$

In compound (B) bands at $1607.64, 1723.41 \text{ cm}^{-1}$ represent of oxime groups,

In mix (c) the peaks at 3377.09 cm^{-1} represent of amide group

The beak at 2360.01 compound (A) for $\text{C}=\text{C}$ group, this beak (A) not found at compounds B and C, its indication double bond is reacted.

Conclusion : Compound (A) Smart Care APCoat Epoxy

WB 219 TCH NCS-S2020-B10G Contain Amino group

Compound (B) Smart Care APCoat Epoxy WB219 TCB Contain Epoxy group

after mix between A and B forming compound C contain amide bond

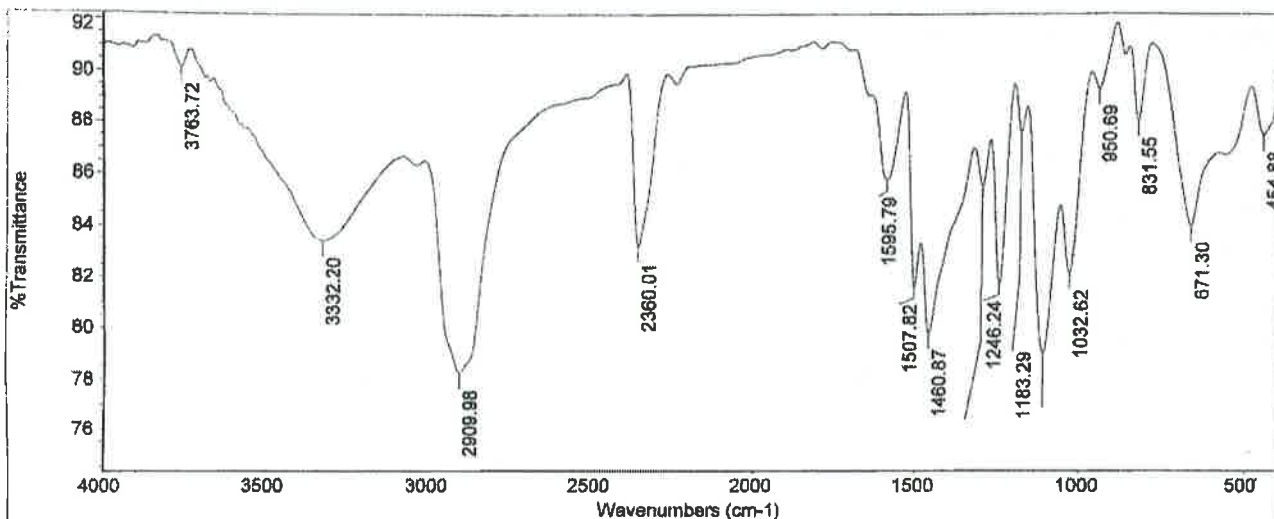
note: attached file enclosed FTIR figure for compounds



SPC Director

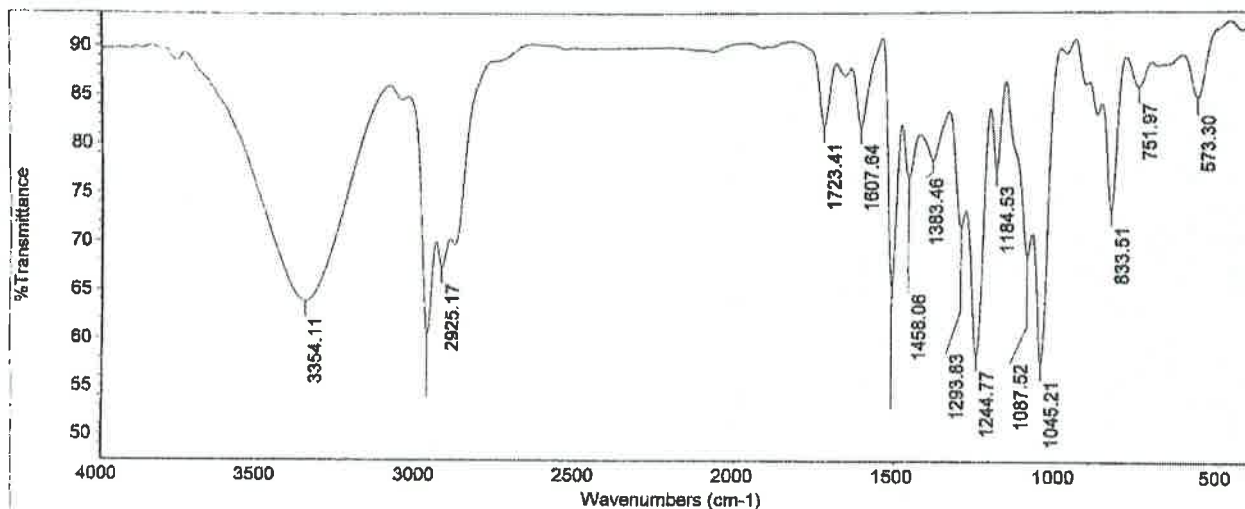
Prof.Dr. Ashraf EL-Said

Sample Code : Cs-Q / 6-6- 2023/A



Figaur(1) Smart Care APCoat Epoxy WB 219 TCH NCS-S2020-B10G
Contain Amino group

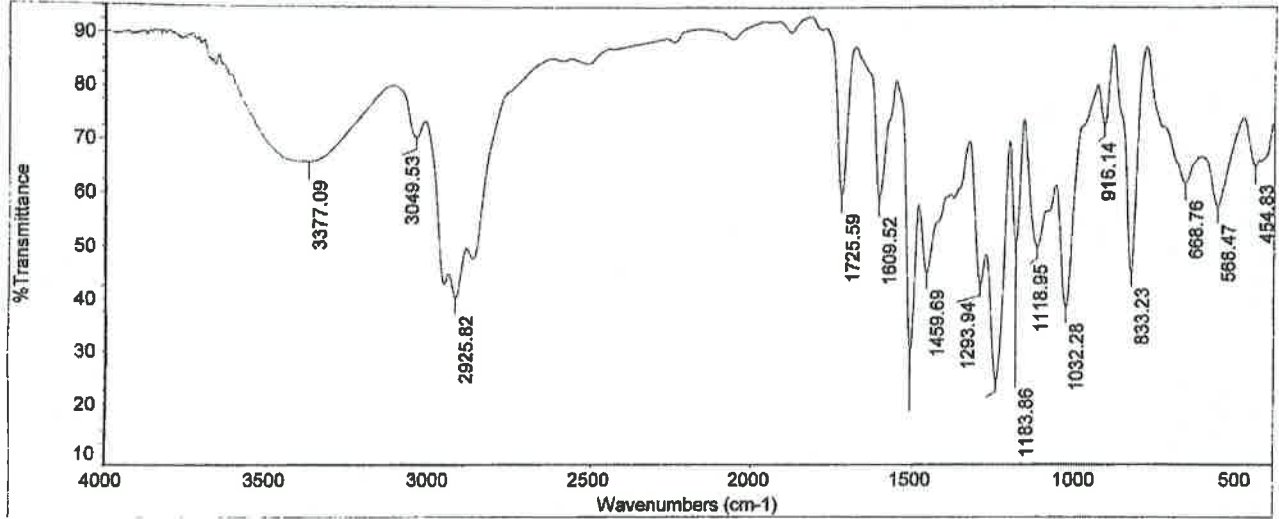
Sample Code : Cs-Q / 6-6- 2023/ B Low conc



Figaur(2) Smart Care APCoat Epoxy WB219 TCB Contain
Epoxy group



Sample Code : Cs-Q / 6-6- 2023/ C



Figaur(3) Mix A+B

