Materials Research 2021
abstract

Title: Freeze Thaw Environment of Concrete Material Effect & Polymers

[1]Department of Civil Engineering, Shanghai Construction Group,Yenigun General Contracting,Abu Dhabi,UAE

[2],Urban Planning Council, Abu Dhabi,UAE.

Keywords: Concrete, Cold Environment, Polymers, Air Entrained%, Expansion Joints.

I. **Abstract Body (up to 300 words)**

II. **In the Recent Building Environment Thousands of Structures are Formed from Concrete Materials that is Considered to be A Hypothesis Standard Type in Which the Current Provided Aspect of Concrete Technology is Providing or Using what it's Called Freeze Thaw Environment, Concrete in Cold Weather for Increasing or Decreasing the W/C Ratio which are Provided for Increasing or Decreasing of the Grade of Concrete, that is Observed to be as An Elastic Pattern, However the Current Concrete Material is Weak in Tension & Strong in Compression & to Equalize the Current we Provide Steel Rebar of Different Types in order to Enhance the strength of the Structural Component, However the Concrete is Affected by the Surrounding Environment to be As A Component for Different Bodies & Environments that are Found, However the Cold Environment Casting of Concrete is Governed by the W/C Ratio that the Air Entrained Bubbles should be Increased in order to Let the Freezing Thaw of Concrete Expands Within it Exactly Similar to the Expansion Joint Concept Idea, While it is the Opposite for Hot Weather Concreting, In Which Material Such as Flyash,Plastisizers & Retarders/Condensers can be Found within the Aspect of Reducing the Current Setting Time for Concrete to take Place within the Cold formed Environment, In other Hot & Cold Weather Climate Polymers are Used for Reducing the Cracking of A Structural Components & Increasing the Strength of the Concrete that is Found to be As An Imperial Material that is Used, Materials Like Fairface Sadamco,Fosroc & Henkel, Mortar Putty & Other Types of Materials Are Used for Either Increasing the Strength of Concrete or Reducing the Shrinkage Cracks that Occurs in A Structural Component.**

III. **Image:**



IV. **Reference:**

1. **Observation:Site Office 1,Yenigun General Contracting,ASCE Construction Technology**

2. **Observation:Site Office 2, AlEslah General Contracting,ASCE Construction Technology**

V. **Biography:**

Khalid Zuiater has completed his BSc at the age of 22 years from ABET, Department of Civil Engineering, Lucian School of Civil Engineering, Abu Dhabi University(Purdue University),UAE. He has Wrote Three Books Representing the Current Structural Applications Titled by Cherry Rose Definitions, a premier Active in the ABET organization. He has Publications more than 30 papers in reputed Free Lancing & Researching and has been serving as an CPFCE Committee ,ASCE board member of repute.

VI. **Presenting author details**



Full Name:

Khalid Abdelhadi Zuiater

account: https://www.linkedin.com/in/khalid-ztr-p-eng-a-m-asce-gmice-mjea-scg%C2%A9%EF%B8%8F-7a96191a0

Category: (Oral presentation/ Poster presentation)

Passport PJOR,Q202868.