

“TRANSLUCENT CONCRETE”

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Abstract – Translucent concrete is awesome because it lets natural light in, which means we don't need to use as much artificial lighting during the day. This saves a bunch of energy and makes indoor spaces feel nicer. Plus, it looks really cool and can make buildings more energy-efficient. Even though it might cost more at first, in the long run, it can save a lot of money and energy. So, it's totally worth considering for building projects. We should keep studying it to make buildings even better in the future! Translucent concrete is a cool new thing! It lets natural light shine through, which means we can use less artificial lighting during the day. This not only saves energy but also makes indoor spaces nicer to be in. Plus, it looks pretty cool and can make buildings more energy-efficient. Even though it might cost more upfront, in the long run, it can save a lot of energy and money. So, it's a win-win! We should keep exploring this idea to make buildings even better in the future.

material's potential to revolutionize building design and contribute to sustainability efforts. By understanding more about translucent concrete, architects and engineers can consider its use to create more the drawn out presentation and sturdiness of substantial designs. Water porousness alludes to the capacity of water to enter through the substantial network under tension or by fine activity. It is a basic property to evaluate, particularly in applications where water openness is common, like scaffolds, dams, passages, and building establishments. The test for water porousness gives important data about the nature of cement, its protection from water entrance, and its true capacity for sturdiness in help.

Key Objectives

- 1) Light transmitting
- 2) Economical
- 3) Sustainability
- 4) Long term durability
- 5) Green building
- 5) Research and development

2.LITERATURE REVIEW

A literature review on translucent concrete explores its innovative use in architecture. Translucent concrete, also known as light-transmitting concrete or translucent cementitious composites, is a material that allows light to pass through it while maintaining structural integrity. Through various studies and projects, researchers have examined its properties, applications, and potential impact on the construction industry. Studies indicate that translucent concrete is composed of silicon sticks or fine particles embedded within a conventional concrete matrix. These components enable light transmission, offering unique design possibilities for architects and engineers. The literature highlights its benefits, including energy efficiency, aesthetic appeal, and enhanced interior lighting. Researchers have investigated different manufacturing techniques and materials to improve the performance and durability of translucent concrete. They have also explored its applications in facades, pavements, and interior design elements. Additionally, studies have addressed challenges such as cost-effectiveness, maintenance, and structural stability. Overall, the literature underscores the potential of translucent concrete to revolutionize architectural design and construction practices. However, further research is needed to optimize its properties, address technical

Key Words: (Light transmitting , Concrete strenght ,type of items)

1. INTRODUCTION

Translucent concrete, also known as "light-transmitting concrete," is gaining attention for its potential to make buildings more eco-friendly. This material allows natural light to pass through while maintaining its strength. The study aims to explore how translucent concrete can save energy, benefit the environment, and improve the indoor experience for building occupants. One significant advantage of translucent concrete is its ability to reduce the need for artificial lighting, relying more on natural daylight. This can lead to lower energy consumption and a positive environmental impact. Additionally, translucent concrete's thermal properties help regulate building temperatures, potentially reducing the need for heating and cooling systems. The study examines the current capabilities of translucent concrete, its applications, and future possibilities. It highlights the

limitations, and promote widespread adoption in the building industry.

3. METHODOLOGY

- Locally available material
- Think about the easiest way to perform of the block
- Assembling the block.
- In this way we prepare a block in easiest way.

4. RESULT

Sr.No.	NAME OF ELEMENT (concrete block) GRADE	WATER PENETRATION DEPTH (MM)		COMP. STRENGHT (KN)
		CURING PEROID		
		7 days	14 days	
Block 1	M15 (1:2:4)	17	34	57
Block 2	M20 (1:1.5.:3)	21	37	62
Block 3	M25 (1:1:2)	22	36	64

5. PHOTOGRAPHS OF TEST SPECIMEN



5.CONCLUSIONS

Translucent concrete offers significant energy efficiency advantages. Its ability to transmit natural light reduces the reliance on artificial lighting, especially during daylight hours, potentially cutting down energy consumption for lighting in buildings. This feature not only saves electricity but also enhances the indoor environment by providing a more natural and visually appealing lighting experience. In terms of environmental impact, translucent concrete contributes to sustainability by reducing energy consumption and associated greenhouse gas emissions. Its insulating properties help maintain indoor thermal comfort, minimizing heat loss in winter and heat gain in summer.

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