

TITLE OF INVENTION: HOLCIM STRUCTURAL LIGHTCRETE

SPECIFICATIONS / DESCRIPTION

In today's situation when there is a scarcity of land and people look forward to additional floors for old buildings where foundation are not being able to withstand the higher dead weight of normal concrete. The answer is Holcim Structural Lightcrete – the light weight concrete but the problem till date was achieving higher strength as required for structural needs. The normal light weight concrete compressive strength in the range of 10 to 20 MPa in place of expected minimum Grade 35 to 40 MPa concrete as per the specification requirement of structural concrete. In view of the above, Holcim Structural Lightcrete was developed which is innovative and has many specialties as describe below:

1. This Structural Lightcrete is a lightweight concrete with compressive strength in the range of 35 to 40 MPa.
2. This unique product has been produced by judicious combination of light weight high strength aggregates, creating controlled annular air space, special mineral additives and producing the concrete by a specially designed process & equipment.
3. The density of concrete is in the range of 1600 to 1800 kg/m³ against the normal concrete density of 2400kg/m³. That means it has lower dead weight around 67 to 75% of the normal weight concrete and thus permitting additional floors or structural amendments on the old buildings where the foundation has limitation to take additional weight of normal weight concrete. Further, it can be used for the buildings / projects under design stage which will enable the Designer to have lesser load on foundation making it environment friendly and creating a possibility of constructive structures where there are problems of weak sub-soil conditions.
4. When use for structural light weight concrete walls, in addition to lower dead weights, it also provides improved insulation and acoustic properties of wall elements.
5. This product provides higher fire rated concrete structure as compared to normal concrete.
6. This permits alternation and additions of the structural member with minimal possible dead weight load.

CLAIMS

This unique product Holcim Structural Lightcrete concrete is characterized by the description and abstract indicated shall be having exclusive intelligent property rights for the inventor and anyone trying to utilize this combination directly or indirectly and copying the same would be breaching the patent rights filed for this product by the inventor and the said party would be liable for legal actions.