

Light Weight Cellular Panels for Masonry Building Construction

Technology in Brief

Light Weight Cellular (LWC) Panels consists of cement, fly-ash, sand, additives and water-cement flyash in appropriate proportion. The LWC panel has a protruded trough shaped 20 mm deep and 72 mm wide notch, and has male-female joint for better interlocking. It acts as a dry masonry joint and a thin layer of mortar is added in bed joints with 04 vertical holes of 60 @ 157 mm c/c. The vertical holes are filled with M20 grade concrete and 8mm dia. Bar and these act as a core column.

Salient Features/Advantages

- Easy handling due to light weight and provides thermal comfort and acoustic insulation.
- Better interlocking action due to toothing grooves in block.
- Faster construction (60% time saving in walling), economical (30%) and easy manufacturing process, environmental, sustainable as compared to burnt clay solid units.
- Economically viable and is recommended up to 4 storey load bearing buildings even in seismic zone V.
- Satisfactory performance in axial and lateral loads.
- Sustainable, use of waste products viz. fly-ash, with better durability.
- Faster pace of construction and no use of heavy equipment.



Light Weight Compressed Column Block



Light Weight Compressed U-Beam Block



Light Weight Compressed Wall Block

End Product(s)	Light Weight Cellular Panels for Masonry Building Construction
LWC Size	90 x 270 x 140 mm
License/Commercialization	M/s Bharat Nav Nirman
TRL	6
Environment Impact	Sustainable, eco-friendly, waste reducing
Capacity	2500 per day