

# PRECAST LIGHTWEIGHT WALL AND ROOF PANELS FOR MASS HOUSING

*An innovative pre-engineered precast technology for mass housing*

CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai has developed pre-engineered precast lightweight large wall and roof panels for mass housing that will contribute immensely towards urban infrastructure development in India. The light weight panels have a sandwich construction with expanded polystyrene as core and self-compacting concrete skins. The performance of these light weight panels as well as G+1 building assembled using these panels were evaluated for flexural, axial and seismic actions.

## FEATURES / HIGHLIGHTS

- Two third weight reduction compared to conventional panels
- Low thermal conductivity, moderate compressive strength and excellent shock absorption ability
- Faster casting, better quality control and amenability for prefabrication
- Use of industrial wastes in large quantities resulting in sustainability of construction materials
- Pollution free construction



*Demo building with lightweight large wall and roof panels*



*Creche building with lightweight panel using EPS at CSIR-CLRI, Chennai*



*KV school building with lightweight panel using EPS at CSIR-CLRI, Chennai*

## TECHNOLOGY TRANSFER

Technology was transferred to M/s Synergy Trishlington, Mohali; M/s Consortium Techno Solution Pvt. Ltd., Hyderabad; and M/s. Level9 Biz Pvt. Ltd., Mohali on non-exclusive basis. Technology is available for other interested players in the industry.



**For further details:**

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