

The Times of India**Title : Now, a toilet in just 4 hours****Author : PiyushMishra****Location :****Ahmedabad:****Article Date : 07/02/2015****Atira Designs Modular Toilet**

Both central and state governments are aggressively promoting schemes to install toilets in each household and at a reasonable cost. A new 'low-cost light-weight modular toilet' designed by Ahmedabad Textile Industry's Research Association (ATIRA) can go a long way in meeting the demand of toilets in households across country .

The toilet designed by Atira is made of Textile Reinforced Concrete (TRC) and can be installed in just four hours at any location at the cost of little above Rs 11,500.

These technically sound and economically priced toilets can be used for fairly long period without any maintenance. "Various components of toilets can be supplied in modular form, which can be retrofitted at the site by individuals themselves and hence the installation time is reduced to few hours for concretebased toilets," said K K Misra, CEO, Atira.

The ministry of drinking water and sanitation has chosen the 'modular toilet' for a national-level exhibition under the 'innovation' category .The exhibition is to be held in Delhi on Thursday and Friday . "Bihar and West Bengal governments have shown interest in purchasing these toilets. We have got orders of around 2,000 toilets. We are in talks with Rajasthan government also," said Dr S Rahman, assistant director, Atira.

Twin-pit system

The toilet is based on Twin-Pit Pour-Flush (TPPF) system. It is built with basic components such as toilet pan, water seal, superstructure, interconnecting pipes, leach pits and light points. The modular toilet is 8 ft in height, 2.99 ft in length and 3.99 ft in breadth. To manage the discharge, toilet is dependent on sock pits. "We are planning to incorporate DRDO's bio-digester technology in the modular toilet in the next level. This will remove the need for sock pits," added Rahman. The toilet also uses Pultruded Composite Frame and hybrid jute reinforced concrete. The materials used in installing these toilets are fire and UV resistant. TNN

TEN STEPS TO MODULAR TOILET

<ul style="list-style-type: none"> ➤ Digging ➤ Base and seat ➤ Pultruded composite columns ➤ Installation of TRC panels ➤ Installation of two TRC strips (front) ➤ Pultruded composite-based roof frame 		<ul style="list-style-type: none"> ➤ TRC-based roof, vent and electrical fitting ➤ Hybrid jute-based composite door ➤ Lightweight concrete steps ➤ Two soak pits installations using PVC pipes
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