

## Distribution of Houses by Predominant Materials of Roof and Wall and Level of Damage Risk

**Table No. : TL 10**

**TELANGANA**

**KHAMMAM**

Wall / Roof		Census Houses		Level of Risk under										Flood Prone Area in %
		No. of Houses	%	EQ Zone				Wind Velocity m/s						
				V	IV	III	II	55 & 50	47	44 & 39	33			
				Area in %				Area in %						
						94.0	6.0			100		5.0		
WALL														
A1 - Mud & Unburnt Brick Wall	Rural	74,280	9.0											
	Urban	10,955	1.3											
	Total	85,235	10.3			M	L			M		VH		
A2 - Stone Wall not packed with mortar	Rural	7,512	0.9											
	Urban	3,190	0.4											
	Total	10,702	1.3			M	L			L		VH		
Total - Category - A		95,937	11.6											
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	386,792	46.6											
	Urban	156,112	18.8											
	Total	542,904	65.4			L	VL			L		H/M		
Total - Category - B		542,904	65.4											
C1 - Concrete Wall	Rural	7,124	0.9											
	Urban	7,816	0.9											
	Total	14,940	1.8			VL	VL			VL		L/VL		
C2 - Wood wall	Rural	14,410	1.7											
	Urban	1,021	0.1											
	Total	15,431	1.8			VL	VL			M		H		
Total - Category - C		30,371	3.7											
X - Other Materials	Rural	151,120	18.2											
	Urban	9,415	1.1											
	Total	160,535	19.3			VL	VL			M		VH		
Total - Category - X		160,535	19.3											
TOTAL HOUSES*		829,747												

ROOF													
R1 - Light Weight Sloping Roof	Rural	252,883	30.5										
	Urban	53,860	6.5										
	Total	306,743	37.0			L	VL			H		VH	
R2 - Heavy Weight Sloping Roof	Rural	95,108	11.5										
	Urban	20,918	2.5										
	Total	116,026	14.0			L	VL			L		H	
R3 - Flat Roof	Rural	293,247	35.3										
	Urban	113,731	13.7										
	Total	406,978	49.0	Damage Risk as per that for the Wall supporting it									
TOTAL HOUSES*		829,747											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **779 mm**

### Housing Category : Wall Types

**Category - A :** Buildings in field-stone, rural structures, unburnt brick houses, clay houses

**Category - B :** Ordinary brick building; buildings of the large block & prefabricated type, half-timbered structures, building in natural hewn stone

**Category - C :** Reinforced building, well built wooden structures

**Category - X :** Other materials not covered in A,B,C. These are generally light.

**Notes :** 1. Flood prone area includes that protected area which may have more severe damage under failure of protection works. In some other areas the local damage may be severe under heavy rains and choked drainage.

2. Damage Risk for wall types is indicated assuming heavy flat roof in categories A, B and C (Reinforced Concrete) building

3. Source of Housing Data : Census of Housing, GOI, 2011

### Housing Category : Roof Type

**Category - R1 -** Light Weight (Grass, Thatch, Bamboo, Wood, Mud, Plastic, Polythene, GI Metal, Asbestos Sheets, Other Materials)

**Category - R2 -** Heavy Weight (Tiles, Stone/Slate)

**Category - R3 -** Flat Roof (Brick, Concrete)

EQ Zone V : Very High Damage Risk Zone (MSK > IX)

EQ Zone IV : High Damage Risk Zone (MSK VIII)

EQ Zone III : Moderate Damage Risk Zone (MSK VII)

EQ Zone II : Low Damage Risk Zone (MSK < VI)

Level of Risk : VH = Very High; H = High;

M = Moderate; L = Low; VL = Very Low

\* Total No. of Houses excluding Vacant/Locked Houses