

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

**Table No. : GJ 26**

**State : GUJARAT**

**TAPI**

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 %				
						100				100		7.6
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	13,361	6.6									
	Urban	1,699	0.8									
	Total	15,060	7.4			M				M		VH
A2 - Stone Wall not packed with mortar	Rural	367	0.2									
	Urban	127	0.1									
	Total	494	0.3			M				L		VH
Total - Category - A		15,554	7.7									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	54,275	26.8									
	Urban	14,155	7.0									
	Total	68,430	33.8			L				L		H/M
Total - Category - B		68,430	33.8									
C1 - Concrete Wall	Rural	2,854	1.4									
	Urban	1,730	0.9									
	Total	4,584	2.3			VL				VL		L/VL
C2 - Wood wall	Rural	653	0.3									
	Urban	211	0.1									
	Total	864	0.4			VL				M		H
Total - Category - C		5,448	2.7									
X - Other Materials	Rural	109,473	54.1									
	Urban	3,555	1.8									
	Total	113,028	55.9			VL				M		VH
Total - Category - X		113,028	55.8									
TOTAL HOUSES*		202,460										

<b>ROOF</b>												
<b>R1 - Light Weight Sloping Roof</b>	Rural	30,289	15.0									
	Urban	7,664	3.8									
	<b>Total</b>	<b>37,953</b>	<b>18.8</b>			L				H		VH
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	140,586	69.4									
	Urban	4,568	2.3									
	<b>Total</b>	<b>145,154</b>	<b>71.7</b>			L				L		H
<b>R3 - Flat Roof</b>	Rural	10,108	5.0									
	Urban	9,245	4.6									
	<b>Total</b>	<b>19,353</b>	<b>9.6</b>	<i>Damage Risk as per that for the Wall supporting it</i>								
<b>TOTAL HOUSES*</b>		<b>202,460</b>										

Probable Maximum Precipitation at a Station of the district in one day for areal extent of 1000 sq.km. is **1112 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