

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

**Table No. : GJ 06**

**State : GUJARAT**

**GANDHINAGAR**

Wall / Roof		Census Houses		Level of Risk under								
		No. of Houses	%	EQ Zone				Wind Velocity m/s				Flood Prone Area in %
				V	IV	III	II	55 & 50	47	44 & 39	33	
				Area in %				Area in %				
						100				100		13.6
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	47,315	13.5									
	Urban	16,310	4.7									
	Total	63,625	18.2			M				M		VH
A2 - Stone Wall not packed with mortar	Rural	1,604	0.5									
	Urban	471	0.1									
	Total	2,075	0.6			M				L		VH
Total - Category - A		65,700	18.8									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	130,266	37.2									
	Urban	136,922	39.1									
	Total	267,188	76.3			L				L		H/M
Total - Category - B		267,188	76.3									
C1 - Concrete Wall	Rural	5,053	1.4									
	Urban	4,057	1.2									
	Total	9,110	2.6			VL				VL		L/VL
C2 - Wood wall	Rural	495	0.1									
	Urban	320	0.1									
	Total	815	0.2			VL				M		H
Total - Category - C		9,925	2.8									
X - Other Materials	Rural	4,579	1.3									
	Urban	2,763	0.8									
	Total	7,342	2.1			VL				M		VH
Total - Category - X		7,342	2.1									
TOTAL HOUSES*		350,155										

ROOF												
R1 - Light Weight Sloping Roof	Rural	85,575	24.4									
	Urban	42,265	12.1									
	Total	127,840	36.5			L				H		VH
R2 - Heavy Weight Sloping Roof	Rural	28,207	8.1									
	Urban	6,257	1.8									
	Total	34,464	9.9			L				L		H
R3 - Flat Roof	Rural	75,530	21.6									
	Urban	112,321	32.1									
	Total	187,851	53.7	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		350,155										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sq.km. is **552 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



Building Materials & Technology Promotion Council

Peer Group, MoHUA, GOI