

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

**Table No. : GJ 22**

**State : GUJARAT**

**THE DANGS**

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		1.9
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	7,475	13.4									
	Urban	188	0.3									
	Total	7,663	13.7			M				M		VH
A2 - Stone Wall not packed with mortar	Rural	125	0.2									
	Urban	52	0.1									
	Total	177	0.3			M				L		VH
Total - Category - A		7,840	14.1									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	7,400	13.3									
	Urban	3,401	6.1									
	Total	10,801	19.4			L				L		H/M
Total - Category - B		10,801	19.4									
C1 - Concrete Wall	Rural	201	0.4									
	Urban	63	0.1									
	Total	264	0.5			VL				VL		L/VL
C2 - Wood wall	Rural	303	0.5									
	Urban	44	0.1									
	Total	347	0.6			VL				M		H
Total - Category - C		611	1.1									
X - Other Materials	Rural	33,929	61.0									
	Urban	2,455	4.4									
	Total	36,384	65.4			VL				M		VH
Total - Category - X		36,384	65.4									
TOTAL HOUSES*		55,636										
ROOF												
R1 - Light Weight Sloping Roof	Rural	4,124	7.4									
	Urban	2,315	4.2									
	Total	6,439	11.6			L				H		VH
R2 - Heavy Weight Sloping Roof	Rural	44,867	80.6									
	Urban	2,718	4.9									
	Total	47,585	85.5			L				L		H
R3 - Flat Roof	Rural	442	0.8									
	Urban	1,170	2.1									
	Total	1,612	2.9	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		55,636										

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