

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

Table No. : GJ 12

State : GUJARAT

JUNAGADH

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 %				
WALL						100		84.1		15.9		
A1 - Mud & Unburnt Brick Wall	Rural	40,486	5.9									
	Urban	3,246	0.5									
	Total	43,732	6.4				<i>M</i>		<i>VH</i>		<i>M</i>	
A2 - Stone Wall not packed with mortar	Rural	83,972	12.2									
	Urban	15,906	2.3									
	Total	99,878	14.5				<i>M</i>		<i>H</i>		<i>L</i>	
Total - Category - A		143,610	20.9									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	298,672	43.4									
	Urban	209,427	30.4									
	Total	508,099	73.8				<i>L</i>		<i>H</i>		<i>L</i>	
Total - Category - B		508,099	73.8									
C1 - Concrete Wall	Rural	13,384	1.9									
	Urban	11,720	1.7									
	Total	25,104	3.6				<i>VL</i>		<i>L</i>		<i>VL</i>	
C2 - Wood wall	Rural	3,460	0.5									
	Urban	1,112	0.2									
	Total	4,572	0.7				<i>VL</i>		<i>VH</i>		<i>M</i>	
Total - Category - C		29,676	4.3									
X - Other Materials	Rural	5,306	0.8									
	Urban	1,961	0.3									
	Total	7,267	1.1				<i>VL</i>		<i>VH</i>		<i>M</i>	
Total - Category - X		7,267	1.1									
TOTAL HOUSES*		688,652										

ROOF												
R1 - Light Weight Sloping Roof	Rural	21,640	3.1									
	Urban	12,580	1.8									
	Total	34,220	4.9				<i>L</i>		<i>VH</i>		<i>H</i>	
R2 - Heavy Weight Sloping Roof	Rural	274,883	39.9									
	Urban	61,293	8.9									
	Total	336,176	48.8				<i>L</i>		<i>H</i>		<i>L</i>	
R3 - Flat Roof	Rural	148,757	21.6									
	Urban	169,499	24.6									
	Total	318,256	46.2	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		688,652										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sq.km. is **886 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 chocked 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