

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

Table No. : GJ 25

State : GUJARAT

SURAT

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		32.3	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	31,127	1.9										
	Urban	17,941	1.1										
	Total	49,068	3.0				<i>M</i>			<i>M</i>		<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	1,224	0.1										
	Urban	2,736	0.2										
	Total	3,960	0.3				<i>M</i>			<i>L</i>		<i>VH</i>	
Total - Category - A		53,028	3.3										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	181,553	11.3										
	Urban	1,168,710	72.7										
	Total	1,350,263	84.0				<i>L</i>			<i>L</i>		<i>H/M</i>	
Total - Category - B		1,350,263	84.0										
C1 - Concrete Wall	Rural	18,925	1.2										
	Urban	49,485	3.1										
	Total	68,410	4.3				<i>VL</i>			<i>VL</i>		<i>L/ VL</i>	
C2 - Wood wall	Rural	1,661	0.1										
	Urban	30,607	1.9										
	Total	32,268	2.0				<i>VL</i>			<i>M</i>		<i>H</i>	
Total - Category - C		100,678	6.3										
X - Other Materials	Rural	80,342	5.0										
	Urban	23,520	1.5										
	Total	103,862	6.5				<i>VL</i>			<i>M</i>		<i>VH</i>	
Total - Category - X		103,862	6.5										
TOTAL HOUSES*		1,607,831											

ROOF													
R1 - Light Weight Sloping Roof	Rural	101,524	6.3										
	Urban	284,882	17.7										
	Total	386,406	24.0				<i>L</i>			<i>H</i>		<i>VH</i>	
R2 - Heavy Weight Sloping Roof	Rural	143,198	8.9										
	Urban	42,926	2.7										
	Total	186,124	11.6				<i>L</i>			<i>L</i>		<i>H</i>	
R3 - Flat Roof	Rural	70,110	4.4										
	Urban	965,191	60.0										
	Total	1,035,301	64.4				<i>Damage Risk as per that for the Wall supporting it</i>						
TOTAL HOUSES*		1,607,831											

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