

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

**Table No. : GJ 16**

**State : GUJARAT**

**KHEDA**

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		29.2	
<b>WALL</b>													
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	180,003	33.2										
	Urban	17,832	3.3										
	<b>Total</b>	<b>197,835</b>	<b>36.5</b>				<i>M</i>			<i>M</i>		<i>VH</i>	
<b>A2 - Stone Wall not packed with mortar</b>	Rural	2,164	0.4										
	Urban	639	0.1										
	<b>Total</b>	<b>2,803</b>	<b>0.5</b>				<i>M</i>			<i>L</i>		<i>VH</i>	
<b>Total - Category - A</b>		<b>200,638</b>	<b>37.0</b>										
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	194,988	36.0										
	Urban	106,812	19.7										
	<b>Total</b>	<b>301,800</b>	<b>55.7</b>				<i>L</i>			<i>L</i>		<i>H/M</i>	
<b>Total - Category - B</b>		<b>301,800</b>	<b>55.7</b>										
<b>C1 - Concrete Wall</b>	Rural	10,693	2.0										
	Urban	6,118	1.1										
	<b>Total</b>	<b>16,811</b>	<b>3.1</b>				<i>VL</i>			<i>VL</i>		<i>L/ VL</i>	
<b>C2 - Wood wall</b>	Rural	1,776	0.3										
	Urban	786	0.1										
	<b>Total</b>	<b>2,562</b>	<b>0.4</b>				<i>VL</i>			<i>M</i>		<i>H</i>	
<b>Total - Category - C</b>		<b>19,373</b>	<b>3.6</b>										
<b>X - Other Materials</b>	Rural	17,718	3.3										
	Urban	2,377	0.4										
	<b>Total</b>	<b>20,095</b>	<b>3.7</b>				<i>VL</i>			<i>M</i>		<i>VH</i>	
<b>Total - Category - X</b>		<b>20,095</b>	<b>3.7</b>										
<b>TOTAL HOUSES*</b>		<b>541,906</b>											

ROOF													
<b>R1 - Light Weight Sloping Roof</b>	Rural	122,603	22.6										
	Urban	38,127	7.0										
	<b>Total</b>	<b>160,730</b>	<b>29.6</b>				<i>L</i>			<i>H</i>		<i>VH</i>	
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	177,423	32.7										
	Urban	15,015	2.8										
	<b>Total</b>	<b>192,438</b>	<b>35.5</b>				<i>L</i>			<i>L</i>		<i>H</i>	
<b>R3 - Flat Roof</b>	Rural	107,316	19.8										
	Urban	81,422	15.0										
	<b>Total</b>	<b>188,738</b>	<b>34.8</b>				<i>Damage Risk as per that for the Wall supporting it</i>						
<b>TOTAL HOUSES*</b>		<b>541,906</b>											

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 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