

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

**Table No. : MH 34**

**State : MAHARASHTRA**

**KOLHAPUR**

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 %							
				3.3	96.7							64.5	35.5		
<b>WALL</b>															
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	211,236	20.0												
	Urban	43,125	4.1												
	<b>Total</b>	<b>254,361</b>	<b>24.1</b>			H	M					M	L		
<b>A2 - Stone Wall not packed with mortar</b>	Rural	36,492	3.5												
	Urban	12,912	1.2												
	<b>Total</b>	<b>49,404</b>	<b>4.7</b>			H	M					L	VL		
<b>Total - Category - A</b>		<b>303,765</b>	<b>28.7</b>												
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	397,643	37.6												
	Urban	213,845	20.2												
	<b>Total</b>	<b>611,488</b>	<b>57.8</b>			M	L					L	VL		
<b>Total - Category - B</b>		<b>611,488</b>	<b>57.9</b>												
<b>C1 - Concrete Wall</b>	Rural	32,988	3.1												
	Urban	54,601	5.2												
	<b>Total</b>	<b>87,589</b>	<b>8.3</b>			L	VL					VL	VL		
<b>C2 - Wood wall</b>	Rural	5,456	0.5												
	Urban	2,452	0.2												
	<b>Total</b>	<b>7,908</b>	<b>0.7</b>			L	VL					M	L		
<b>Total - Category - C</b>		<b>95,497</b>	<b>9.0</b>												
<b>X - Other Materials</b>	Rural	33,620	3.2												
	Urban	12,498	1.2												
	<b>Total</b>	<b>46,118</b>	<b>4.4</b>			VL	VL					M	L		
<b>Total - Category - X</b>		<b>46,118</b>	<b>4.4</b>												
<b>TOTAL HOUSES*</b>		<b>1,056,868</b>													

ROOF															
<b>R1 - Light Weight Sloping Roof</b>	Rural	107,704	10.2												
	Urban	67,369	6.4												
	<b>Total</b>	<b>175,073</b>	<b>16.6</b>			M	L					H	M		
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	527,623	49.9												
	Urban	121,734	11.5												
	<b>Total</b>	<b>649,357</b>	<b>61.4</b>			M	L					L	VL		
<b>R3 - Flat Roof</b>	Rural	82,108	7.8												
	Urban	150,330	14.2												
	<b>Total</b>	<b>232,438</b>	<b>22.0</b>			Damage Risk as per that for the Wall supporting it									
<b>TOTAL HOUSES*</b>		<b>1,056,868</b>													

**Probable Maximum Precipitation at a Station of the district in 24 hrs is 520 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