

## Technical Specification of Concrete Flooring Tiles

**Product : Arena Tile (400x400x40)mm**

S.No.	Description	Asian Concreto	Standard References
			NS 392, IS 1237, ASTM C 1731, BS 5385
1	<b>Dimension of Specimen</b>		
	Length mm	400	As per Actual
	Width mm	400	As per Actual
	Thickness mm	40	As per Actual
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Flatness mm	Nil	1mm
	Straightness	Nil	1% of Length
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 1mm
	Width mm	± 1mm	± 1mm
	Thickness mm	± 1mm	± 5mm
	Arris/ Chamfer mm	(+) 0.2mm	± 1mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Tile</b>		
	cm <sup>2</sup>	1600	As per Actual
4	<b>Volume of Specimen</b>		
	cm <sup>3</sup>	6400	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>		
	28 Days	≥ 30	25 N/mm <sup>2</sup>
6	<b>Water Absorption</b>		
	(%)	< 6%	Maximum 10%
7	<b>Dry Density</b>		
	kg/m <sup>3</sup>	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b>		
	mm	< 2mm	Maximum 2.5mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Natural (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete tile package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of concrete tiles, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

## Technical Specification of Concrete Bricks

**Product :** Asian Brick (230x110x55)mm  
Asian Brick (230x110x70)mm

S.No.	Description	Asian Concreto		Standard References
				IS 12894, IS2185, IS 1077
1	<b>Dimension of Specimen</b>			
	Length mm	230	230	230
	Width mm	110	110	110
	Thickness mm	55	70	As per Actual
2	<b>Dimension Tolerance</b>			
	Length mm	± 1mm	± 1mm	± 3mm
	Width mm	± 1mm	± 1mm	± 1.5mm
	Thickness mm	± 2mm	± 2mm	± 3mm
3	<b>Surface Area of Brick</b>			
	cm <sup>2</sup>	253	253	As per Actual
4	<b>Volume of Specimen</b>			
	cm <sup>3</sup>	1391.5	1771	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>			
	28 Days	≥ 10	≥ 10	10 N/mm <sup>2</sup>
6	<b>Water Absorption</b>			
	(%)	< 10%	< 10%	Maximum 20%
7	<b>Dry Density</b>			
	kg/m <sup>3</sup>	1800	1800	1800 kg/m <sup>3</sup>
8	<b>Lable and Marking</b>			
	Concrete brick package shall be marked with the following information suitably:			
	a) Identification of the manufacturer,			
	b) Grade of bricks, and			
	c) Date of manufacture.			
	Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

## Technical Specification of Precast Concrete Pavers (Paving Block)

**Product :** Cobble Paver (100x100x60)mm

S.No.	Description	Asian Concreto	Standard References
			Nepal Standard 593:2077
1	<b>Dimension of Specimen</b>		
	Length mm	100	As per Actual
	Width mm	100	As per Actual
	Thickness mm	60	As per Actual
	Aspect Ratio mm	1.67	Maximum 4
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 2mm
	Width mm	± 1mm	± 2mm
	Thickness mm	± 1mm	± 1mm
	Squareness mm	± 0mm	± 2mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
	Chamfer mm	(+) 0.2mm	± 1mm
3	<b>Surface Area of Paver</b>		
	cm <sup>2</sup>	100	As per Actual
4	<b>Volume of Specimen</b>		
	cm <sup>3</sup>	600	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>		
	28 Days	≥ 35	35 N/mm <sup>2</sup>
6	<b>Water Absorption</b>		
	(%)	< 6%	Maximum 6%
7	<b>Dry Density</b>		
	kg/m <sup>3</sup>	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b>		
	mm	< 2mm	Maximum 3mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete paver block package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of paver blocks, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

## Technical Specification of Concrete Flooring Tiles

**Product : Mix Fusion Tile (1200x800x40)mm Per Set**

S.No.	Description	Asian Concreto	Standard References
			NS 392, IS 1237, ASTM C 1731, BS 5385
1	<b>Dimension of Specimen</b>		
	Length mm	1200	As per Actual
	Width mm	800	As per Actual
	Thickness mm	40	As per Actual
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Flatness mm	Nil	1mm
	Straightness	Nil	1% of Length
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 1mm
	Width mm	± 1mm	± 1mm
	Thickness mm	± 1mm	± 5mm
	Arris/ Chamfer mm	(+) 0.2mm	± 1mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Tile</b> cm <sup>2</sup>	9600	As per Actual
4	<b>Volume of Specimen</b> cm <sup>3</sup>	38400	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b> 28 Days	≥ 30	25 N/mm <sup>2</sup>
6	<b>Water Absorption</b> (%)	< 6%	Maximum 10%
7	<b>Dry Density</b> kg/m <sup>3</sup>	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b> mm	< 2mm	Maximum 2.5mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete tile package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of concrete tiles, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			



## Technical Specification of Precast Concrete Pavers (Paving Block)

**Product : Grass Paver (600x400x80)mm**

S.No.	Description	Asian Concreto	Standard References
			<i>Nepal Standard 593:2077</i>
1	<b>Dimension of Specimen</b>		
	Length mm	600	As per Actual
	Width mm	400	As per Actual
	Thickness mm	80	As per Actual
	Aspect Ratio mm	Not Defined	Maximum 4
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 2mm	± 2mm
	Width mm	± 2mm	± 2mm
	Thickness mm	± 1mm	± 1mm
	Squareness mm	± 0mm	± 2mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Paver</b>		As per Actual
	cm <sup>2</sup>	2400	
4	<b>Volume of Specimen</b>		As per Actual
	cm <sup>3</sup>	19200	
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b> 28 Days	≥ 40	40 N/mm <sup>2</sup>
6	<b>Water Absorption</b> (%)	< 6%	Maximum 6%
7	<b>Dry Density</b>		2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
	kg/m <sup>3</sup>	2250	
8	<b>Abrasion Resistance</b>		Maximum 3mm
	mm	< 2mm	
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete paver block package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of paver blocks, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

**Technical Specification of Precast Concrete Pavers (Paving Block)**

Product : Hexagon Paver (226x200x50)mm  
 Hexagon Paver (226x200x60)mm  
 Hexagon Paver (226x200x70)mm  
 Hexagon Paver (226x200x80)mm

S.No.	Description	Asian Concrete				Standard References
						Nepal Standard 593:2077
1	<b>Standard Dimension of Specimen</b>					
	Length mm	226	226	226	226	As per Actual
	Width mm	200	200	200	200	As per Actual
	Thickness mm	50	60	70	80	As per Actual
	Aspect Ratio mm	4.52	3.77	3.22	2.82	Maximum 4
	Arris/ Chamfer mm	7.2	7.2	7.2	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil	Nil	Nil	Nil
	Thickness of Wearing Layer mm	> 6	> 6	> 6	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>					
	Length mm	± 1mm	± 1mm	± 1mm	± 1mm	± 2mm
	Width mm	± 1mm	± 1mm	± 1mm	± 1mm	± 2mm
	Thickness mm	± 1mm	± 1mm	± 1mm	± 1mm	± 1mm
	Squareness mm	± 0mm	± 0mm	± 0mm	± 0mm	± 2mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm	(+) 2mm	(+) 2mm	(+) 2mm
	Chamfer mm	(+) 0.2mm	(+) 0.2mm	(+) 0.2mm	(+) 0.2mm	± 1mm
3	<b>Surface Area of Paver</b> cm <sup>2</sup>	336	336	336	336	As per Actual
4	<b>Volume of Specimen</b> cm <sup>3</sup>	1680	2016	2352	2688	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b> 28 Days	≥ 35	≥ 40	≥ 45	≥ 50	(50mm) = 30N/mm <sup>2</sup> (60mm) = 35N/mm <sup>2</sup> (70mm) = 40N/mm <sup>2</sup> (80mm) = 40N/mm <sup>2</sup>
6	<b>Water Absorption</b> (%)	< 6%	< 6%	< 6%	< 6%	Maximum 6%
7	<b>Dry Density</b> kg/m <sup>3</sup>	2250	2250	2250	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b> mm	< 2mm	< 2mm	< 2mm	< 2mm	Maximum 3mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Natural	Synthetic or Natural	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>					
	Concrete paver block package shall be marked with the following information suitably:					
	a) Identification of the manufacturer,					
	b) Grade of paver blocks, and					
	c) Date of manufacture.					
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications						

## Technical Specification of Concrete Masonry Unit (Hollow Block)

**Product :** Hollow Block (390x100x190)mm  
Hollow Block (390x150x190)mm  
Hollow Block (390x200x190)mm

S.No.	Description	Asian Concreto			Standard References
					IS 2185(Part 1), NS 119
1	<b>Dimension of Specimen</b>				
	Length mm	390	390	390	As per Actual
	Width mm	100	150	200	As per Actual
	Height mm	190	190	190	As per Actual
2	<b>Dimension Tolerance</b>				
	Length mm	± 1mm	± 1mm	± 1mm	± 5mm
	Width mm	± 1mm	± 1mm	± 1mm	± 3mm
	Height mm	± 2mm	± 2mm	± 2mm	± 3mm
3	<b>Surface Area</b>				
	cm <sup>2</sup>	390	585	780	As per Actual
4	<b>Volume of Specimen</b>				
	cm <sup>3</sup>	7410	11115	14820	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>				
	28 Days	≥ 7.5	≥ 7.5	≥ 7.5	Minimum 5N/mm <sup>2</sup>
6	<b>Thickness of Face Shell</b>				
	mm	28	28	28	(390x100x190)mm = 25mm Min (390x150x190)mm = 25mm Min (390x200x190)mm = 30mm Min
7	<b>Thickness of Web</b>				
	mm	28	28	28	(390x100x190)mm = 25mm Min (390x150x190)mm = 25mm Min (390x200x190)mm = 25mm Min
8	<b>Water Absorption</b>				
	(%)	< 8%	< 8%	< 8%	Maximum 10%
9	<b>Drying Shrinkage</b>				
	(%)	< 0.04	< 0.04	< 0.04	Maximum 0.04%
10	<b>Moisture Movement</b>				
	(%)	< 0.03	< 0.03	< 0.03	Maximum 0.03%
11	<b>Dry Density</b>				
	kg/m <sup>3</sup>	1600	1600	1600	1600 kg/m <sup>3</sup>
12	<b>Lable and Marking</b>				
	Concrete hollow block package shall be marked with the following information suitably:				
	a) Identification of the manufacturer,				
	b) Grade of hollow blocks, and				
	c) Date of manufacture.				
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications					

## Technical Specification of Precast Concrete Pavers (Paving Block)

**Product : Interlock Paver (200x200x60)mm**

S.No.	Description	Asian Concreto	Standard References
			Nepal Standard 593:2077
1	<b>Dimension of Specimen</b>		
	Length mm	200	As per Actual
	Width mm	200	As per Actual
	Thickness mm	60	As per Actual
	Aspect Ratio mm	3.33	Maximum 4
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 2mm
	Width mm	± 1mm	± 2mm
	Thickness mm	± 1mm	± 1mm
	Squareness mm	± 0mm	± 2mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Paver</b>		As per Actual
	cm <sup>2</sup>	375	
4	<b>Volume of Specimen</b>		As per Actual
	cm <sup>3</sup>	2250	
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b> 28 Days		35 N/mm <sup>2</sup>
6	<b>Water Absorption</b> (%)		Maximum 6%
7	<b>Dry Density</b> kg/m <sup>3</sup>		2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b> mm		Maximum 3mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete paver block package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of paver blocks, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			



## Technical Specification of Concrete Flooring Tiles

**Product : Italia Tile (400x400x40)mm**

S.No.	Description	Asian Concrete	Standard References
			NS 392, IS 1237, ASTM C 1731, BS 5385
1	<b>Dimension of Specimen</b>		
	Length mm	400	As per Actual
	Width mm	400	As per Actual
	Thickness mm	40	As per Actual
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Flatness mm	Nil	1mm
	Straightness	Nil	1% of Length
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 1mm
	Width mm	± 1mm	± 1mm
	Thickness mm	± 1mm	± 5mm
	Arris/ Chamfer mm	(+) 0.2mm	± 1mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Tile</b>		
	cm <sup>2</sup>	1600	As per Actual
4	<b>Volume of Specimen</b>		
	cm <sup>3</sup>	6400	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>		
	28 Days	≥ 30	25 N/mm <sup>2</sup>
6	<b>Water Absorption</b>		
	(%)	< 6%	Maximum 10%
7	<b>Dry Density</b>		
	kg/m <sup>3</sup>	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b>		
	mm	< 2mm	Maximum 2.5mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Neutral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete tile package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of concrete tiles, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			



## Technical Specification of Precast Concrete Kerbs

Product : Bullnose (300x200x350)mm  
 Half Battred (300x200x350)mm  
 Half Battred (300x165x325)mm  
 Half Battred (250x200x380)mm

S.No.	Description	Asian Concreto				Standard References
						Nepal Standard 594:2077
1	<b>Dimension of Specimen</b>					
	Length mm	300	300	300	250	Maximum 1000
	Width mm	200	200	165	200	As per Actual
	Height mm	350	350	325	380	As per Actual
	Thickness of Wearing Layer mm	> 8	> 8	> 8	> 8	4 to 12.5
2	<b>Dimension Tolerance</b>					
	Length mm	± 1mm	± 1mm	± 1mm	± 1mm	± 3mm
	Width mm	± 1mm	± 1mm	± 1mm	± 1mm	± 1.5mm
	Height mm	± 1mm	± 1mm	± 1mm	± 1mm	± 3mm
3	<b>Area of Kerbstone</b>					
	cm <sup>2</sup>	600	600	495	500	As per Actual
4	<b>Volume of Specimen</b>					
	cm <sup>3</sup>	21000	21000	1608.7	19000	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>					
	28 Days	≥ 20	≥ 20	≥ 20	≥ 20	Minimum 20 N/mm <sup>2</sup>
6	<b>Water Absorption</b>					
	(%)	< 6%	< 6%	< 6%	< 6%	Maximum 8%
7	<b>Dry Density</b>					
	kg/m <sup>3</sup>	2250	2250	2250	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Lable and Marking</b>					
	Concrete kerbstone package shall be marked with the following information suitably:					
	a) Identification of the manufacturer,					
	b) Grade of kerbstones, and					
	c) Date of manufacture.					
	Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications					

## Technical Specification of Concrete Flooring Tiles

**Product : Matrix Tile (400x400x40)mm**

S.No.	Description	Asian Concrete	Standard References
			NS 392, IS 1237, ASTM C 1731, BS 5385
1	<b>Dimension of Specimen</b>		
	Length mm	400	As per Actual
	Width mm	400	As per Actual
	Thickness mm	40	As per Actual
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Flatness mm	Nil	1mm
	Straightness	Nil	1% of Length
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 1mm
	Width mm	± 1mm	± 1mm
	Thickness mm	± 1mm	± 5mm
	Arris/ Chamfer mm	(+) 0.2mm	± 1mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Tile</b>		
	cm <sup>2</sup>	1600	As per Actual
4	<b>Volume of Specimen</b>		
	cm <sup>3</sup>	6400	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>		
	28 Days	≥ 30	25 N/mm <sup>2</sup>
6	<b>Water Absorption</b>		
	(%)	< 6%	Maximum 10%
7	<b>Dry Density</b>		
	kg/m <sup>3</sup>	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b>		
	mm	< 2mm	Maximum 2.5mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Neutral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete tile package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of concrete tiles, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

## Technical Specification of Precast Concrete Pavers (Paving Block)

**Product : Nostalgic Paver (1157x944x60)mm Per Set**

S.No.	Description	Asian Concreto	Standard References
			Nepal Standard 593:2077
1	<b>Dimension of Specimen</b>		
	Length mm	1157	As per Actual
	Width mm	944	As per Actual
	Thickness mm	60	As per Actual
	Aspect Ratio mm	Not Defined	Maximum 4
	Arris/ Chamfer mm	Rounded	Min 5, Max 7
	Squareness mm	Nil	Nil
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 2mm
	Width mm	± 1mm	± 2mm
	Thickness mm	± 1mm	± 1mm
	Squareness mm	± 0mm	± 2mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Paver</b>		As per Actual
	cm <sup>2</sup>	10922	
4	<b>Volume of Specimen</b>		As per Actual
	cm <sup>3</sup>	65532	
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>		35 N/mm <sup>2</sup>
28 Days	≥ 35		
6	<b>Water Absorption</b>		Maximum 6%
(%)	< 6%		
7	<b>Dry Density</b>		2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
	kg/m <sup>3</sup>	2250	
8	<b>Abrasion Resistance</b>		Maximum 3mm
	mm	< 2mm	
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete paver block package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of paver blocks, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

**Technical Specification of Precast Concrete Pavers (Paving Block)**

**Product : Rectangular Paver (200x100x60)mm  
Rectangular Paver (200x100x100)mm**

S.No.	Description	Asian Concreto		Standard References
				<i>Nepal Standard 593:2077</i>
1	<b>Dimension of Specimen</b>			
	Length mm	200	200	As per Actual
	Width mm	100	100	As per Actual
	Thickness mm	60	100	As per Actual
	Aspect Ratio mm	3.33	2.00	Maximum 4
	Arris/ Chamfer mm	7.2	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil	Nil
	Thickness of Wearing Layer mm	> 6	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>			
	Length mm	± 1mm	± 1mm	60mm Thickness = ± 2mm 100mm Thickness = ± 3mm
	Width mm	± 1mm	± 1mm	60mm Thickness = ± 2mm 100mm Thickness = ± 3mm
	Thickness mm	± 1mm	± 1.5mm	60mm Thickness = ± 1mm 100mm Thickness = ± 1.5mm
	Squareness mm	± 0mm	± 0mm	60mm Thickness = ± 2mm 100mm Thickness = ± 3mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm	(+) 2mm
	Chamfer mm	(+) 0.2mm	(+) 0.2mm	± 1mm
3	<b>Surface Area of Paver</b> cm <sup>2</sup>	200	200	As per Actual
4	<b>Volume of Specimen</b> cm <sup>3</sup>	1200	2000	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b> 28 Days	≥ 40	≥ 50	(60mm) Thickness = 35 N/mm <sup>2</sup> (100mm) Thickness = 50 N/mm <sup>2</sup>
6	<b>Water Absorption</b> (%)	< 6%	< 6%	Maximum 6%
7	<b>Dry Density</b> kg/m <sup>3</sup>	2250	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b> mm	< 2mm	< 3mm	Maximum 3mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>			
	Concrete paver block package shall be marked with the following information suitably:			
	a) Identification of the manufacturer,			
	b) Grade of paver blocks, and			
c) Date of manufacture.				
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications				



## Technical Specification of Precast Concrete Pavers (Paving Block)

**Product : Romba 3D Paver (340x197x60)mm**

S.No.	Description	Asian Concreto	Standard References
			Nepal Standard 593:2077
1	<b>Dimension of Specimen</b>		
	Length mm	340	As per Actual
	Width mm	197	As per Actual
	Thickness mm	60	As per Actual
	Aspect Ratio mm	3.33	Maximum 4
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 2mm
	Width mm	± 1mm	± 2mm
	Thickness mm	± 1mm	± 1mm
	Squareness mm	± 0mm	± 2mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Paver</b>		As per Actual
	cm <sup>2</sup>	337	
4	<b>Volume of Specimen</b>		As per Actual
	cm <sup>3</sup>	2022	
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>		35 N/mm <sup>2</sup>
	28 Days	≥ 40	
6	<b>Water Absorption</b>		Maximum 6%
	(%)	< 6%	
7	<b>Dry Density</b>		2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
	kg/m <sup>3</sup>	2250	
8	<b>Abrasion Resistance</b>		Maximum 3mm
	mm	< 2mm	
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete paver block package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of paver blocks, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			



## Technical Specification of Precast Concrete Pavers (Paving Block)

**Product : Square Paver (200x200x60)mm**

S.No.	Description	Asian Concrete	Standard References
			Nepal Standard 593:2077
1	<b>Dimension of Specimen</b>		
	Length mm	200	As per Actual
	Width mm	200	As per Actual
	Thickness mm	60	As per Actual
	Aspect Ratio mm	3.33	Maximum 4
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 2mm
	Width mm	± 1mm	± 2mm
	Thickness mm	± 1mm	± 1mm
	Squareness mm	± 0mm	± 2mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Paver</b>		As per Actual
	cm <sup>2</sup>	400	
4	<b>Volume of Specimen</b>		As per Actual
	cm <sup>3</sup>	2400	
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>		35 N/mm <sup>2</sup>
	28 Days	≥ 45	
6	<b>Water Absorption</b>		Maximum 6%
	(%)	< 6%	
7	<b>Dry Density</b>		2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
	kg/m <sup>3</sup>	2250	
8	<b>Abrasion Resistance</b>		Maximum 3mm
	mm	< 2mm	
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Natural (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete paver block package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of paver blocks, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

## Technical Specification of Concrete Flooring Tiles

**Product : Tactile (400x400x40)mm**

S.No.	Description	Asian Concreto	Standard References
			ASTM C 1731, BS 5385
1	<b>Dimension of Specimen</b>		
	Length mm	400	As per Actual
	Width mm	400	As per Actual
	Thickness mm	40	As per Actual
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Flatness mm	Nil	1mm
	Straightness	Nil	1% of Length
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 1mm
	Width mm	± 1mm	± 1mm
	Thickness mm	± 1mm	± 5mm
	Arris/ Chamfer mm	(+) 0.2mm	± 1mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
3	<b>Surface Area of Tile</b>		As per Actual
	cm <sup>2</sup>	1600	
4	<b>Volume of Specimen</b>		As per Actual
	cm <sup>3</sup>	6400	
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>		25 N/mm <sup>2</sup>
	28 Days	≥ 30	
6	<b>Water Absorption</b>		Maximum 10%
	(%)	< 6%	
7	<b>Dry Density</b>		2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
	kg/m <sup>3</sup>	2250	
8	<b>Abrasion Resistance</b>		Maximum 2.5mm
	mm	< 2mm	
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete tile package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of concrete tiles, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

## Technical Specification of Precast Concrete Pavers (Paving Block)

**Product : Unipaver (240x120x60)mm**

S.No.	Description	Asian Concreto	Standard References
			Nepal Standard 593:2077
1	<b>Dimension of Specimen</b>		
	Length mm	240	As per Actual
	Width mm	120	As per Actual
	Thickness mm	60	As per Actual
	Aspect Ratio mm	4	Maximum 4
	Arris/ Chamfer mm	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil
	Thickness of Wearing Layer mm	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>		
	Length mm	± 1mm	± 2mm
	Width mm	± 1mm	± 2mm
	Thickness mm	± 1mm	± 1mm
	Squareness mm	± 0mm	± 2mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm
	Chamfer mm	(+) 0.2mm	± 1mm
3	<b>Surface Area of Paver</b>	288	As per Actual
	cm <sup>2</sup>		
4	<b>Volume of Specimen</b>	1728	As per Actual
	cm <sup>3</sup>		
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>	≥ 40	35 N/mm <sup>2</sup>
	28 Days		
6	<b>Water Absorption</b>	< 6%	Maximum 6%
	(%)		
7	<b>Dry Density</b>	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
	kg/m <sup>3</sup>		
8	<b>Abrasion Resistance</b>	< 2	Maximum 3mm
	mm		
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>		
	Concrete paver block package shall be marked with the following information suitably:		
	a) Identification of the manufacturer,		
	b) Grade of paver blocks, and		
	c) Date of manufacture.		
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications			

**Technical Specification of Precast Concrete Pavers (Paving Block)**

Product : Zigzag Paver (225x112.5x80)mm  
Zigzag Paver (225x112.5x100)mm

S.No.	Description	Asian Concreto		Standard References
				Nepal Standard 593:2077
1	<b>Dimension of Specimen</b>			
	Length mm	225	225	As per Actual
	Width mm	112.5	112.5	As per Actual
	Thickness mm	80	100	As per Actual
	Aspect Ratio mm	2.81	2.25	Maximum 4
	Arris/ Chamfer mm	7.2	7.2	Min 5, Max 7
	Squareness mm	Nil	Nil	Nil
	Thickness of Wearing Layer mm	> 6	> 6	Minimum 6mm
2	<b>Dimension Tolerance</b>			
	Length mm	± 1mm	± 1mm	60mm Thickness = ± 2mm 100mm Thickness = ± 3mm
	Width mm	± 1mm	± 1mm	60mm Thickness = ± 2mm 100mm Thickness = ± 3mm
	Thickness mm	± 1mm	± 1.5mm	60mm Thickness = ± 1mm 100mm Thickness = ± 1.5mm
	Squareness mm	± 0mm	± 0mm	60mm Thickness = ± 2mm 100mm Thickness = ± 3mm
	Thickness of Wearing Layer mm	(+) 2mm	(+) 2mm	(+) 2mm
	Chamfer mm	(+) 0.2mm	(+) 0.2mm	± 1mm
3	<b>Surface Area of Paver</b>			
	cm <sup>2</sup>	243	243	As per Actual
4	<b>Volume of Specimen</b>			
	cm <sup>3</sup>	1944	2430	As per Actual
5	<b>Minimum Compressive Strength N/mm<sup>2</sup></b>			
	28 Days	≥ 40	≥ 50	(80mm) Thickness = 40 N/mm <sup>2</sup> (100mm) Thickness = 50 N/mm <sup>2</sup>
6	<b>Water Absorption</b>			
	(%)	< 6%	< 6%	Maximum 6%
7	<b>Dry Density</b>			
	kg/m <sup>3</sup>	2250	2250	2250 kg/m <sup>3</sup> , ± 50 kg/m <sup>3</sup>
8	<b>Abrasion Resistance</b>			
	mm	< 2mm	< 3mm	Maximum 3mm
9	<b>Face Layer Pigment (Color)</b>	Synthetic or Natural	Synthetic or Natural	Synthetic or Nautral (Zinc compound or organic dyes or Lead pigments shall not be used)
10	<b>Lable and Marking</b>			
	Concrete paver block package shall be marked with the following information suitably:			
	a) Identification of the manufacturer,			
	b) Grade of paver blocks, and			
	c) Date of manufacture.			
Note: The product should be adequately packed to identify above and also ensure products from manufacturer facility to the buyer facility during loading transport, unloading do not suffer any physical damage including chipping, cracking, deform or any other damage from actual product specifications				