TERRE ARMEE

Sub-grade Stabilisation

ArmaGrid – BX_{pp}

INTEGRAL POLYPROPYLENE
BIAXIAL GEOGRIDS

Track Bed Stabilisation

ArmaGrid – BX_{PP}

ArmaGrid – BX_{PP} is a biaxial geogrid made from polypropylene by accurate punching, and then stretching in two directions under strictly controlled conditions with a continuous orientation through the nodes. ArmaGrid – BX_{PP} is inert to chemicals, including acids, alkalis and salts, normally found in soils. ArmaGrid – BX_{PP} does not suffer any attack by microorganisms in soil.

Applications

- **Railways**: Enhancing the ballast performance in railways and stabilisation of track foundation layers with reduced ballast degradation and settlement.
- **Roadways**: Subbase and sub-grade improvement by reinforcement and stabilisation; and increase in durability of flexible pavement and unpaved roads.
- **Airport Runways and Taxiways**: Subbase and sub-grade improvement for the runway and taxiway pavements of airfield.
- **Ports**: Sub-grade reinforcement and load distribution for container yards, under warehouse or similar load carrying platforms.

Technical Parameters

Properties		Test Method	Unit	AG-BX_{PP} 1616	AG-BX_{PP} 2020	AG-BX_{PP} 3030	AG-BX_{PP} 4040	AG-BX_{PP} 2020L	AG-BX_{PP} 3030L	AG-BX_{PP} 4040L
Physical Properties[i]										
Material				Polypropylene						
Pitch Size	Pmd[vi]		mm	40	40	40	38	66	66	61
Pitch Size	Ptd[vi]		mm	40	40	40	38	66	66	61
Rib Width	Wmd[vi]		mm	2.3	2.3	2.4	2.6	4.4	4.4	4.7
Rib Width	Wtd[vi]		mm	3.1	3.1	3.7	4.5	5.5	5.6	6.1
Rib Depth	Tmd[vi]		mm	1.2	1.3	2.4	2.8	1.4	2	2.8
Rib Depth	Ttd[vi]		mm	0.6	0.7	1	1	0.7	0.9	1.1
Tj[vi]		-	mm	1.7	2.1	2.5	3.5	3	3.6	4.5
Mechanical Properties										
				Minimum Average Roll Value (MARV)[ii]						
Ultimate Tensile Strength	MD[v]	ASTM D6637 B	kN/m	16	20	30	40	20	30	40
	CD[v]	ASTM D6637 B	kN/m	16	20	30	40	20	30	40
Maximum Elongation (±6)	MD[v]	ASTM D6637 B	%	15	15	15	15	15	15	15
Maximum Elongation (±3)	CD[v]	ASTM D6637 B	%	10	10	10	10	10	10	10
Tensile Strength @ 2% Strain	MD[v]	ASTM D6637 B	kN/m	5.6	7	11	14	7	11	14
	CD[v]	ASTM D6637 B	kN/m	5.6	7.4	11	14	7.4	11	14
Tensile Strength @ 5% Strain	MD[v]	ASTM D6637 B	kN/m	11.2	14	21	28	14	21	28
	CD[v]	ASTM D6637 B	kN/m	11.2	14.6	21	28	14.6	21	28
Junction Efficiency		ASTM D7737/D6637	%	95%	95%	95%	95%	95%	95%	95%
Radial Stiffness[iv]		ASTM D6637	kN/m	280	350	550	700	350	550	700
Standard Packaging										
Roll Width[vii]			m	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Roll Length[vii]			m	100	51.3	51.3	30.8	51.3	51.3	30.8
Standard Roll Area[iii]			m^2	390	200	200	120	200	200	120

[i] All the values are Nominal values
[ii] Values shown are minimum average roll values determinate in accordance with ASTMD4759.
[iii] Other weight option available
[iv] At 2% strain under 360° radial loading. Determined from tests in accordance with ISO10319.
[v] MD= Machine Direction, CD= Cross Machine Direction
[vi] Refer to figure 1
[vii] These values are subject to ±1% variation

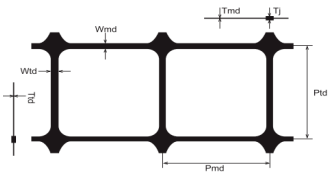

Figure 1

NOTES
A. These properties may change at the time of handling, storage and shipping.
B. The values can be customized.
C. The above values are subject to change as per discretion of the company
D. All mechanical properties are based on the manufacturer's laboratory test results at 21±1°C.
E. Carbon black content ≥ 2%
F. ASTM D7737 performed at 10% per minute strain rate.
G. Expressed as a comparison of ASTM D7737 strength to ASTM D6637 strength of the same sample.
H. Using specimens 2 ribs wide with ribs transverse to the specimen cut flush with the exterior edges of the ribs in the direction of the specimen.

Local Contact: .....

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