



# **ANTI-STATIC TILES**



Johnson Endura, the industrial tiling solution provider has looked into very niche but highly important areas, which are sensitive to static electricity. Johnson Endura Anti-Static Tiles have been specially developed for such areas:

#### Fire Hazardous Areas:

Anti-static Dissipative type: (Surface Resistance between 1 Mega Ohm to 1 Giga Ohm)
Static electricity accumulates on the surface of any floor be it natural stone, ceramic tile or any other flooring material. This static electricity is accumulated due to the friction between any two surfaces like shoes and the floor. This static electricity could lead to sparks which could lead to fire hazards in areas like petrochemical industries, shell making factories, ordnance factories, defence industries, chemical plants, bulk drug plants and other fire prone areas. Johnson Endura Anti-static tiles remove the static electricity charge from the surface of the tile and

#### **Electronic Equipment Areas:**

earth it; and hence the fire hazard is minimized.

Anti-static Conductive Type: (Surface Resistance below 1 Mega Ohm)
Anti-static tiles are also used for server rooms, computer rooms & electronic equipment rooms where static electricity can damage the working of electronic equipments.

#### **Application Areas:**

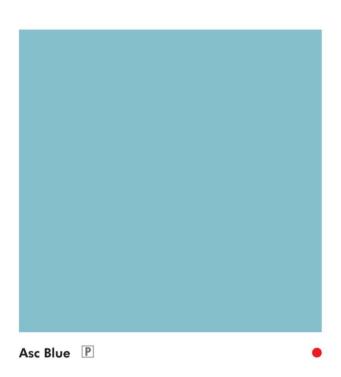
Server Rooms, Petrochemical Factories, Ordnance Factories, Chemical Plants, Bulk Drug Plants, Fire Prone Areas, Computer Rooms, Electronic Equipment Rooms, PLC Panel Rooms, PCB Manufacturing, IT Industry, Sophisticated Equipment Laboratories, Shell Making Factories, Defence Factories, Hospital Operation Theatres.



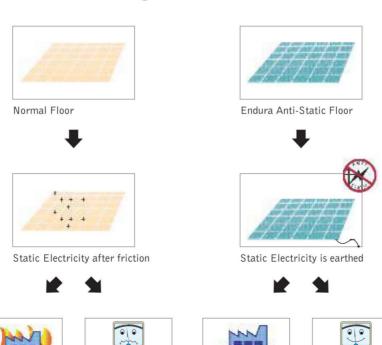




# antistaticseries 60X60cm 1cmthick



### Working of antistatic tiles



No fire hazard

Eliminates possibility

of damage



Possibility of fire hazard

Can damage electronic

equipment





# antistatictile

Features	Advantages	Benefits
Surface Electrical Resistance – Conductive <1 Mega Ohm & Dissipative – 1 Mega Ohm to 1 Giga Ohm	Surface electrical resistance being the property of material decides the nature of product in terms of its charge conductance. Surface Electrical resistance as per ANSI norms ensures smooth transfer of accumulated static charge to grounding path.	Static hazard-free area resulting in smooth uninterrupted functioning of critical equipments. Helps in mitigating fire hazard from floor due to static charges.
Static decay Time – Conductive - <0.5 sec Dissipative - <0.5 sec	Static decay time as per ANSI norms ensure smooth discharge of accumulated static electricity from the surface.	Compliance with critical requirement of such sensitive areas. Static Hazard free area resulting in smooth uninterrupted functioning of critical equipments. Helps in mitigating fire hazards from floors due to static charges.
Firm & Effective Grounding of Floors	Vitrified anti-static tiles help provide firm and permanent grounding.	Assures Anti Static property throughout the service life of product.
60cm X 60cm Matt finish AS Blue Tile	Bigger size offers lesser joints. Matt finish with anti-skid elegant floor in blue shade.	Customer benefitted by safe floor to meet industrial safety norms along with excellent aesthetic ambience.
Stain Resistance	Provides sufficiently good stain resistance property to effective maintain the matt finish floor.  Being a glazed vitrified tile, the tile is virtually stain proof	Helps in maintaining good housekeeping norms.
Endura Anti-Static Tiles Patented Product	In ceramic tile industry, whereas all products are insulators, Johnson Tiles have developed a special patented product for their customers to address the specific concerns on ESD hazard.	Customer benefitted by the best and only product from ceramic industry which not only offers protection from ESD hazards but also provides excellent service life due to its mechanical properties.



# technicalspecifications

(Anti-Static Tiles)

S. No.	Property	Indian Standard IS 15622:2017 Group B1a Requirement	Endura Anti-Static Value	Test Method	
A) [	Dimensions & Surface Quality				
1	Deviation in Length & Width	± 0.1 %	± 0.1%		
2	Deviation in Thickness	± 5 %	± 4%		
3	Straightness of Sides	± 0.1 %	± 0.1%	100 105 45 0 /10 10/00 1	
4	Rectangularity	± 0.1 %	± 0.1%	ISO 10545-2 / IS 13630-1	
5	Surface Flatness	± 0.5 %	± 0.2%		
6	Surface Quality	Min 95% free from visible defects	>95% free from visible defects		
B) F	Physical Property				
7	Water Absorption	Avaerage ≤0.08, Individual 0.1%, Max	<u>≤</u> 0.05%	ISO 10545-3 / IS 13630- 2	
8	Modulus of Rupture	Average 35N/mm², Individual 32N/mm², Min	≥38N/mm²	ISO 10545-4 / IS 13630-6	
9	Breaking Strength	700 N Min for thickness < 7.5 mm, 1300 Min for thickness ≥7.5mm	≥1800N	ISO 10545-4 / IS 13630-6	
10	Moisture Expansion	0.02 mm/m, Max	<u>&lt;</u> 0.02 mm/m	ISO 10545-10 / IS 13630-3	
11	Scratch Hardness of Surface (Moh's scale)	5, Min	<u>≥</u> 5	IS 13630 -13	
12	Resistance to Surface Abrasion of Glazed Tiles for Floor Application	Class II, Min	PEI III-IV	ISO 10545-7 /IS 13630 -11	
13	Coefficient of Linear Thermal Expansion	Max, 6 x 10 <sup>-6</sup> K <sup>-1</sup>	≤6 x 10 <sup>-6</sup> K <sup>-1</sup>	ISO 10545-8/ IS 13630-4	
14	Thermal Shock Resistance	10 cycles Min	No Damage	ISO 10545-9 / IS 13630 -5	
15	Crazing Resistance of Glazed Tiles	4 cycles @7.5 bar Min	No Damage	ISO 10545-11/ IS 13630-9	
16	Impact Resistance	0.55, Min	<u>&gt;</u> 0.55	ISO 10545-5 / IS 13630-14	
	# Skid Resistance				
17	a) Skid Resistance - Ramp Test	Manufacturer to declare	>R9	DIN 51130	
	b) Coefficient of Friction	Manufacturer to declare	>0.42	ISO 10545 -17 /ANSI A 326.3	
18	Frost Resistance	Required if requested by purchaser	No damage	ISO 10545-12 / IS 13630-10	
19	Bulk Density (g/cc)	2.2, Min	<u>≥</u> 2.2	ASTM C373-16 / IS 13630-2	
20	Color Resistance to UV Light	-	No change in color	DIN 51094	
	Resistance to Chemicals				
	1) Resistance to Low concentrations of acids & alkalies	Manufacturer to declare	GLA	100 10545 10 410 2010 5	
21	2) Resistance to High concentrations of acids & alkalies	Manufacturer to declare	GHA	ISO 10545-13 / IS 13630-8	
	Resistance to household chemicals and swimming pool salts	GB	GA		
22	Resistance to Staining - Glazed Tiles	Class 1 min	Class 1 min	ISO 10545-14 / IS 13630-8	
23	Lead & Cadmium Release-for Glazed Tiles, where required	-	Nil	ISO 10545-15	
		Below 1 Mega Ohm (Conductive)	< 50 Kilo Ohm	ANIOLEOD CZ Z	
	Surface Electrical Resistance (ANSI Norms)	Between 1Mega Ohm to 1 Giga Ohm (Dissipative)	1Mega Ohm to 1 Giga Ohm	ANSI ESD S7.1	
24	Static Decay Time	<0.5 Sec (Conductive)	<0.5Sec	MIL-B-8170 Para 4.8.3	
	Static Decay Time	< 2 Sec (Dissipative)	<0.5Sec	& FED-STD- 101C. Method 4046	

<sup>#</sup> Ramp Test: Suitable for all kind of surfaces (Plain, structural..etc)

<sup>#</sup> Slider (BOT -3000E Digital Tribometer): Suitable for plain / smooth surface and not working for structural / profiled surface

### reachusat

Region	Branch	Tel
	Kolkata	033-46021880
	Bhubaneshwar	0674-2430240
East	Siliguri	9836065812
	Guwahati	8135846661
	Ranchi	9576038118
	Mumbai	022-40647500
	Thane	022-25867600 / 666
West	Pune	020-41301164 / 31
west	Ahmedabad	079-48480010
	Raipur	0771-4919129
	Indore	0731-4007441
	Jalandhar	0182-4505038 / 39
	Chandigarh	0172-4697100
	Delhi	011-49526600
North	Jaipur	0141-2368329
	Lucknow	0522-2721699
	Varanasi	0542-2222620
	Patna	9576038781

Region	Branch	Tel
	Bengalure	080-22246841/42
	Hyderabad	040-29802270 / 71 / 72
	Vijayawada	9666429666
	Vishakhapatnam	0891-2796376
	Tirupati	9121228960
0	Kochi	0484-4871277
South	Kozhikode	0495-2352474/ 2352752
	Thiruvananthapuram	6238811801
	Chennai	044-28544116 / 28541881
	Coimbatore	0422-4382698 / 2210501
	Madurai	0452-4355584 / 4355594
	Trichy	9486718544

# experiencecenters

Location	Address	Tel.
Kolkatta	83 JBS Haldane Avenue, TOPSIA Trinity towers Kolkata - 700046	033-46021880
Guwahati	1st Floor, Above Royal Riders Honda, Near Rahul Kata, Pub Bragaon, Garchuk, Guwahati - 781035	8135846661
Bhubaneshwar	229/5332, Gautam Nagar, Bhubaneshwar - 751014	0674-2430240
Thane	Shop No.5, Gr.Floor, Cosmos Jewels, Near Dmart, Anand Nagar, Ghodbunder Road, Thane West - 400615	022-25867600
Pune	Sable House, Poona Snuff Factory, Sr. No 11A, Plot 408/4/5, Satara Road, Gultekadi, Pune - 411037	7350009364
Mumbai	1st flr, Bonanza, Sahar Plaza, Nr Hotel Kohinoor continental, J B Nagar, Andheri Kurla Road, Andheri East, Mumbai - 400059	8108030975
Ahmedabad	F 106-107, Shivalik Plaza, IIM Road, Panjrapole Cross Road, Ahmedabad, Gujarat - 380015	079-48480010
Indore	Shop No 5, 6, 7 and 8, Upper Ground Floor, Exotica, Shalimar Township, Village Niranjanpur, A.B. Road, Indore, Madhya Pradesh - 452001	0731-4988340/4007441
Raipur	2nd Floor, MM Silver Plaza, Opp Udyog Bhawan, Ring Road - 1, Raipur, Chattisgarh - 492001	7714919129
Lucknow	1st Floor, Prithvi Ratan Height,Plot No CP-4, Vijayant khand - 3, Gomtinagar Yojna, Lucknow - 226028	0522-2721699
Chandigarh	SCO 214, sector14, Panchkula, Haryana - 134109	0172-4691000
Varanasi	Ashakunj, 1st floor, D59/103 D4, Opp Siddharth Complex, Sigra Mehmoorganj Road, Varanasi - 221010	0542-2222620
Delhi	First & Mezzanine Floor, B-1/G-3, Mohan Industrial Estate, Mathura Road, New Delhi - 110094.	9319244955
Coimbatore	Elysium Towers, Park Gate Rd, No. 21, ATT Colony, Gopalapuram, Coimbatore - 641018	0422-4382698
Chennai	82, 84 & 86 Bascon Maeru, 1st floor, Kodambakkam High Road, Nungambakkam, Chennai - 600034	044-48611632
Kochi	Door no. 11/300 f, Next to VTJ Hyundai, NH 47 Kundanoor, Maradu, Kochi, Ernakulam - 682304	0484-4871277
Kozhikode	Tilal Tower, Near Nexa Showroom, Kudilthod, Malaparamba bypass,, Kozikode, Kerala - 673017	0495-2352474/ 2352752
Thiruvananthapuram	1st Floor, Sreedhanya Apex, TC 22/3720 (4) Vellayambalam, Sasthamangalam PO, Thiruvananthapuram, Kerala - 695010	6238811801

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