

norament[®]

Product	3.5 mm: arago™, arago™ nTx™	3.5 mm: castello™, grano™, pado™, satura™, grano™ nTx™	3.5 mm ed: grano	2.7 mm: hammered	2.7 mm: kivo™	3.2 mm: 825 round	3.5 mm: xp™, xp™ nTx™	3.5 mm: xp trac™, xp trac™ nTx™	4 mm: 920	9 mm: 992, 992 grano™	Stair Treads		
											5 mm: arago, grano, satura	4.5 mm: round 5 mm: hammered	4.5 mm: 920
ASTM F1344 Rubber Floor Tile	Type IB Grade 2	Type IB Grade 2	Type IB Grade 2	Type IA Grade 1	Type IB Grade 2	Type IA Grade 1	Type IB Grade 1	Type IB Grade 1	Type IA Grade 1	992: Type IIA 992 grano: Type IIB Grade 2	-	-	-
ASTM F2169 Resilient Stair Treads	-	-	-	-	-	-	-	-	-	-	Type TS Class 2 Group 1 or 2 Grade 2	Type TS Class 2 Group 1 or 2 Grade 2	Type TS Class 2 Group 1 or 2 Grade 1
Limited Warranty/years	15	15	15	15	15	15	15	15	15	15	15	15	15
nTx Bond Warranty/years	10	10	-	-	-	-	10	10	-	-	-	-	-
Conductivity Warranty/years	-	-	10	-	-	-	-	-	-	-	-	-	-
Flammability (E648/NFPA 253): ≥ 0.45 watts/sq. cm for Class 1 required	Class 1 0.94 nTx: 0.98	Class 1 0.94 nTx: 0.97	Class 1 0.58	Class 1 0.87	Class 1 1.1	Class 1 0.80	Class 1 0.71 nTx: 0.54	Class 1 0.68	Class 1 0.94	Class 1 0.56	Class 1 1.0	Class 1 1.1	Class 1 0.94
Smoke Density (ASTM E662): < 450 required	296/16 nTx: 369/205	296/16 nTx: 346/145	418/285	162/208	231/234	413/367	197/36 nTx: 422/201	372/284	272/167	289/373	296/16	380/230	272/167
Tunnel Test (ASTM E84): flame/smoke	**	**	**	**	**	**	**	**	Class A 15/300	**	**	**	Class A 15/300
CAN/ULC-S102.2: Surface Burning for FSR/SDC	Refer to the nora [®] Guide Specification or contact the nora [®] Technical Department for details.												
Slip Resistance (ASTM D2047): ≥ 0.5 required	0.81/0.87	castello/pado/satura (two-tone): 0.87/0.93 grano/satura (hammered): 0.99/0.95	1.0/0.90	0.90/1.0	0.87/0.93	0.76/0.85	0.90/1.0	.99/98	0.85/0.76	0.93/0.93	arago: 0.81/0.87 grano/satura: 0.99/0.95	round: 0.85/0.76 hammered: 0.99/0.95	0.85/0.76
Bacteria Resistance (ASTM E2180/ASTM G21)	Resistant to bacteria, fungi, and micro-organism activity												
Latex Allergies (ASTM D6499)	Inhibition Elisa, results are below detection level												
Sound Absorption (ASTM E2179): compare ΔIIC values only	ΔIIC 18	ΔIIC 18	ΔIIC 15	ΔIIC 16	ΔIIC 13	ΔIIC 16	ΔIIC 14	ΔIIC 14	ΔIIC 18	**	**	**	**
Sound Absorption (ISO 10140-3): compare ΔLw values only	ΔLw 10 dB	ΔLw 11 dB	ΔLw 15 dB	ΔLw 9 dB	ΔLw 11 dB	ΔLw 12 dB	**	**	ΔLw 13 dB	ΔLw 17 dB	**	**	**
Hardness (ASTM D2240): Shore Type A	82	82	84	89	82	89	89	89	91	77	82	82	91
Static Load (ASTM F970): with 800 lbs/psi ≤ 0.005 in with 250 lbs required	0.004	0.005	0.004	0.005	0.005	0.004	0.002	0.005	0.005	0.004	0.005	0.005	0.005
Rolling Load Limit (ASTM F2753): lbs/psi (1)	850	850	850	550	850	550	850	850	850	850	-	-	-
Forklift Traffic	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	-	-	-

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Abrasion Resistance (ASTM D3389): H-18 Wheels 1.1 lb load and 1000 cycles ≤ 0.035 oz (1.0 g) required	0.008	0.002	0.004	0.006	0.002	0.005	0.005	0.005	0.007	0.005	arago: 0.006 grano/satura: 0.002	round: 0.005 hammered: 0.006	0.007
Oil & Grease Resistance (ISO 26987)	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes
Heat Resistance (ASTM F1514): Avg. ΔE ≤ 8.0 required	Easily achieved with all batches and regular maintenance.												
Static Generation (AATCC 134): 20% RH	< 1000 volts	< 1000 volts	-	< 1000 volts	< 1000 volts	< 1000 volts	< 1000 volts	< 1000 volts	< 1000 volts	< 1000 volts	< 1000 volts	< 1000 volts	< 1000 volts
Static Generation (ANSI ESD S97.2) *	-	-	< 20 volts	-	-	-	-	-	-	-	-	-	-
Conductivity (ASTM F150): ohms	-	-	10 ⁹ < 10 ⁹	-	-	-	-	-	-	-	-	-	-
Thermal Transmission (ASTM C518): R-value	-0.90	-0.90	**	**	**	**	**	**	**	**	**	**	**
Embodied Carbon (Gradle to Gate)	17.2 kg CO ₂ e/m ³	17.2 kg CO ₂ e/m ³	21.0 kg CO ₂ e/m ³	-	17.2 kg CO ₂ e/m ³	-	-	-	-	-	17.2 kg CO ₂ e/m ³	17.2 kg CO ₂ e/m ³	-
Total Recycled Content (Pre Consumer)	-	-	-	-	-	-	-	-	-	11%	-	-	-
Indoor Air Quality	GREENGUARD Gold Certified; CDPH 01350 compliant												
Disclosure of Environmental Impacts (EPD)	Yes	Yes	Yes	No	Yes	No	No	No	No	No	Yes	Yes	No
Disclosure of Product Ingredients (HPD)	Yes	Yes	Yes	No	Yes	No	No	No	No	No	Yes	Yes	No
Cradle to Cradle Certified® Silver	Yes	Yes	No	No	Yes	No	No	No	No	No	Yes	Yes	No
Greenhealth Approved	Yes	Yes	No	No	Yes	No	No	No	No	No	Yes	Yes	No
LEED v4	Refer to the nora® Guide Specification for details.												

(1) Wheel Types: No metal or hard plastic wheels, the shape of the contact surface of wheels must be flat with round edges. The shore hardness must be Type A ≤ 90.

* Tested with conductive shoes

** Not tested

Note: Exact values may vary due to the test methods and tolerance between batches. The ASTM minimum requirement must be achieved or exceeded.

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