ARCTIC PAD®



SNOWMELT, DE-ICING, AND ANTI-ICING SYSTEM



DESCRIPTION

The Arctic Pad® is a contemporary and exceptionally robust snowmelt system designed for use on walkways, stairways, decks, rooftops, or any location requiring a permanent or portable solution. For more than a decade, the Arctic Pad® has stood as the top choice in the oil & gas and marine industries globally due to its outstanding durability and reliability. Thanks to recent material advancements, integrating an Arctic Pad® package into your project has become easier than ever.

This patented system is a durable heated polyurethane mat includes:

- self-regulating heating cable encapsulated within
- tailored heat output to operating environment
- high thermal mass=minimizes heat loss and energy consumption
- remote activation and energy saving capabilities.
- sized and shaped to fit.
- fast and easy installation

Arctic Pad® is manufactured as exterior overlay. It serves as an ideal yearround solution for reducing and preventing slips and falls.

Options include choice of traction profiles, colors, emboss/deboss of logos, symbols, text, beveled edges, hazard identification, integrated cable channels and more.

SPECIFICATIONS

Application	Public spaces, stairways, transit stations, boarding ramps, building entrances, loading docks, rooftop access paths, escape stairways, egress routes, elevated walkways, turnstiles, downspout splash pads, vessels decks, offshore platform pathways, gangways, and more. This product is suitable for use in virtually any industry where the prevention of snow and ice					
Installation	Place atop steel, grating, concrete, woo	d, etc. and affix in place. Connect to	power source.			
Approvals	Arctic Pad® is designed, tested, and ap Winterized Basic, Cold and Polar condition	proved according to latest DNVGL Stitions.	andards: DNVGL-OS-A201 for use in			
	Arctic Pad® utilizes self-regulating heat Canadian Standards Association, FM A CE Ex, DNV, JIS, CCE/CMRS, GGTN,	cables approved for use in hazardou pprovals, International Electrochemic TIIS, CCE/CSIR, TRCU	s and non-hazardous areas. al Commission, Underwriters Laboratories Inc			
	Certified CAP 437 Helideck Friction Tes	st				
	Certified ANSI/NFSI B101.1-2009,	Certified ANSI/NFSI B101.3-2012	2			
Impact load resistance	65,600 kgf/m2 (5% compression @ 93	psi)				
Construction Materials	Polyurethane					
Configuration Capabilities	Standard sizes and custom sizes per cu	ustomer specifications.				
Nominal Thickness	Standard 23mm (7/8"). Can be manufac	ctured at 23mm (7/8") and up.				
Weight (+/-)	1.0 m2 = 23 kg (23mm), 1.0 ft ² = 4.7 lbs	s. (@7/8")				
Surface Traction Options	LP-low profile, HP-high profile, SLAO-Speedliner aluminum oxide. All products include a non-skid coating for added safety.					
Options	Emboss/deboss text, symbols, logos, text, hole penetrations, beveled edges, photoluminescence, hazard ID, and more.					
Color	Standard colors are grey, black, red, yellow and green. Most RAL colors can be accommodated.					
Sound Dampening	Decreases sound transmission by absorption					
Resistance	Withstands corrosion and chemical atmospheres, salt, seawater, cleaning solvents, oils and fungus resistant (non-nutrient).					
Repairability	Excellent					
Ergonomic Benefits	Yes					
Ultraviolet Stability	Yes					
Water Absorption %	Less than 0.01%					
Dielectric Properties	Electrically dissipative					
TC90 Urethane	Test	Imperial	Metric			
Tear Strength	ASTM D-624	752 lb./in	132 Kn/m			
Tensile Strength	ASTM D-412 die C	4,835 psi	33 MPa			
Service Temperatures		-40°F to 200°F	-38°C to 93°C			
Hardiness	ASTM2240-85	75-85 Shore A				
Elongation	ASTM D-412 die C	726%				
Dynamic COF-Wet	ANSI/NFSI B101.3-2012 >1.0					
Static COF-Wet	ANSI/NSFI B101.1-2009	>1.0				





Example on elevated heated walkway

Example of heated stairway

Bx1 / Sp1	25mm / 1" Arctic Pad	SYSTEM TURNE Time 7:00:41	DOFF Arctic Pad® AM Temperature	SYSTEM TURNED ON Time 8:00:29 AM	Arctic Pad® Temperature
Ambient Temperature	-6.5°C / 20.3°F	Bx1: 25mm / 1" Arct	ic Pad® -0.9°C / 30.4°F	Bx1: 25mm / 1" Arctic Pad®	24.7°C / 76.5
Average Temperature of Arctic Pad®	33.4°C / 92.2°F	Bx2: 20mm / 1" Arct	ic Pad® -0.9°C / 30.4°F	Bx2: 20mm / 1"Arctic Pad®	22.3°C / 72.1

Heat output	Customized to project operating environment.				
Heat precision	Electric heat cable is placed exactly where needed.				
Heat Distribution	Our proprietary manufacturing process directs heat to the topside and ensures surface distribution.				
Thermal Mass	Our polymers retain and hold heat effect	tively.			
Energy Consumption	Due to high thermal mass significant red	duction in the amount of operating energy re	equired compared to others.		
Energy Cycling	Utilizing smart controllers, the system ca energy consumption, typically by 25-50	an be efficiently cycled from one area to an % of power usage.	other, resulting in an additional reduction in		
Supply Voltages	Standard: 208-277 Vac. Upon request 1	110-120.			
Circuit Breaker	Type "C"				
Approvals	Arctic Pad® is designed, tested, and approved according to latest DNVGL Standards: DNVGL-OS-A201 for use in Winterized Basic, Cold and Polar conditions. Arctic Pad® utilizes self-regulating heat cables approved for use in hazardous areas				
	Canadian Standards Association Ordinary Locations Hazardous (Classified Locations) Class I, Divisions 1 & 2, Groups A, B, C, D Class II, Divisions 1 & 2, Groups E, F, G Ex eb IIC Ex tb IIIC	FM Arreve FM Approvals Ordinary Locations Hazardous (Classified Locations) Class I, Division 2, Groups A, B, C, D Class II, Division 2, Groups E, F, G Class I, Zone 1 & 2, AEx eb IIC Gb; Zn 21 AEx bt IIIC Db Class I, Zone 2 Group IIC, Zn 22 Group IIIC	International Electrochemical Commission IEC Certification Scheme for Explosive UL 06.004 / FMG 12.0004X		
	(Underwriters Laboratories Inc	CE (Ex) Certificate FM12 ATEX 0014X in			
	Hazardous (Classified Locations) accordance with the EU ATEX Directive 94/9/EC				
Temperature class	T3 to T6				
Cold lead	NEK 606 mud oil resistance and UL 2225 crush and impact requirements of Type MC-HL cables. Temperature rated @125°C. Meets cold bend test at -55°C and cold impact test at -40°C. Exit point from any side, top or bottom. Cold lead selected per location/specification requirement				

WATT DENSITY

Below are typical watt densities provided for estimation purposes. AMS® recommends utilizing intelligent control and monitoring systems, enabling cycling to reduce energy consumption by 25-50% while increasing pieces per circuit without compromising performance.

Spacing (mm)		Watts / m ²		
	30	39	49	66
51	564	733	921	1,240
76	388	505	634	855
102	301	391	491	662
127	242	315	395	532
152	213	277	348	469

The above numbers are for estimation only. For more information contact your local Advanced Mat Systems® sales representative. The use of a 30 mA residual current device is required to provide maximum safety and protection from fire. Where design results in higher leakage current, the preferred trip level for adjustable devices is 30 mA above any inherent capacitive leakage characteristic of the heater as specified by the heat trace supplier or alternatively, the next common available trip level for non-adjustable devices, with a maximum of 300 mA. All safety aspects need to be proven.

DIMENSIONS

Arctic Pad® can be manufactured in a range of lengths and widths. In most cases, they are custom built to specific dimensions and electrical factors. Below are standard available dimensions.

	AP1	AP2	AP3	Custom
Length x Width	1.0 m x 1.0 m / 3.28' x 3.28'	2.0 m x 1.0 m / 6.56' x 3.28'	3.0 m x 1.0 m / 9.84' x 3.28'	Available
Height	23 mm / 7/8"	23 mm / 7/8"	23 mm / 7/8"	23mm and up
Weight (+/-)	23 kg / 51 lbs.	46 kg / 101 lbs.	69 kg / 152 lbs.	TBD

TRACTION PROFILES OPTIONS







LP-Low Profile









Stainless Steel Studs Available at 32mm and up

INSTALLATIONS



Muster Station

Advanced Mat Systems – ARCTIC PAD 11-2024

Muster Point

Supply Vessel Treads and Landings

OPTIONS

AMS© provides a range of value-added options for your convenience and customization.

Name	Details
Anti-fatigue	for static personnel we offer an anti-fatigue polymer.
Beveled Edge	chamfered edge(s) or perimeter enables a seamless transition between surfaces or varying heights.
Cold Lead	several types/styles of cold lead are available.
Cold Lead Recess	a recess is created to facilitate a smooth 90-degree bend for the cold lead.
Colors	standard – grey, black, red, yellow and green. Other colors upon request.
Emboss / Deboss	text, logo, safety message, symbols, directional arrows, mat ID, etc.
Fastening	molded mounting holes with standard hardware, fastening bars, studs, adhesive and more
Flex Conduit Assembly	flexible conduit slides over the cold lead and is securely attached to a partially embedded collar for added safety.
Hazard Identification	yellow/black striping, red/black striping, or other
Hole Penetrations	voids can be manufactured within the product for a snug fit and optimal coverage.
Integrated Cable Channels	underside voids that are designed to conceal and protect the cold lead, ensuring its safety and cleanliness.
Photoluminescence	glow-in-the-dark identification applied in molded shapes, symbols, text, etc.
Resurfacing Kit	revive top coatings with AMS© kits include everything needed for onsite personnel to complete.
Customization	just ask and we are happy to be of service.

INSTALLATION AND MAINTENANCE

Complete wiring information and schematics are provided with the product. All electrical installations must be carried out by an approved electrician in compliance with the local electrical requirements and norms. The national electrical code requires ground-fault protection of equipment for each branch circuit supplying electric heating equipment. A complete installation and maintenance manual is tailored and provided for each project including suitable fastening options. The average mechanical install time with two persons ranges from 12-15 m²/hour (129-161 ft²/hour).

Routine housekeeping is simply good practice. Light steaming, strong detergent with scrub brushes and/or non-flammable solvent will cut oil and grease. Product to be stored and transported flat. AMS_® Resurfacing Kits are available.

SERVICES

Our experienced personnel are ready to help. We are skilled at conducting services via telephone, email and/or online conferencing with or without video.

Design	From concept to production we supply comprehensive design services, most are free of charge.
Onsite Survey	AMS® trained personnel can be deployed globally, on land or at sea. This service encompasses the precise locations, access points, orientations, electrical placements, obstacle locations, and more. Scheduling is designed to minimize operational disruptions and align with your specific timeline and needs.
Electrical Engineering	We collaborate closely with your engineering team and if needed provide electrical engineering services.
Onsite Installation Support & Supervision	Trained personnel will lend support by directing the installation process. This will certify the installation is in accordance with customer and AMS _® requirements.
Onsite Commissioning	The involves the procedures to check, inspect, adjust, test, document and verify a fully functioning system.

ORDERING DETAILS					
Product Code	Thickness	Traction Profile	Cold Lead Length	Options	
AP-TC90	23mm (7/8") and up	SLAO, LP, HP, SSS	provide	choose	

LIMITED WARRANTY

AMS® offers a 10-year limited product warranty. Terms apply.

CONTACT

Advanced Mat Systems ArcticPad.com E: sales@advancedmatsystems.com T: 1.403.910.1492 100% MADE IN THE USA

SNOWMELT, DE-ICING, AND ANTI-ICING SYSTEM



ADVANCED MAT SYSTEMS® Telephone 1-403-910-1492 Email sales@advancedmatsystems.com wwArcticPad.com

