

DEMISTER PAD DATASHEET

Demister Pads, also known as mist eliminators or wire mesh pads, are essential separation elements used in process equipment to efficiently remove entrained liquid droplets from gas or vapor streams. Manufactured using high-quality metal, non-metal, or composite materials, these pads are designed to enhance gas purity, protect downstream equipment, and improve overall process performance. At Ambani Metals, our demister pads are engineered for superior separation efficiency, capturing fine mist particles as small as 3–5 microns. With advanced knitting techniques and tailored mesh densities, we offer a wide range of configurations to suit diverse applications across industries such as oil & gas, chemical processing, power generation, water treatment, and pharmaceuticals.

SPECIFICATION

Type	Wire diameter (mm)	Bulk Density (kg/m ³)	Voidage	Specific Surface Area (m ² /m ³)
Flat Wire	0.11 × 0.40	168	0.9770	475
Round Wire	0.24			320
Flat Wire	0.11 × 0.30	186	0.9760	626
Round Wire	0.20			484
Flat Wire	0.11 × 0.40	134	0.9874	313
Round Wire	0.24			217
Round Wire	0.07–0.23	128	0.9840	403



MATERIALS

Metals

Stainless Steel	Duplex / S.Duplex	Hastelloy	Aluminium	Carbon Steel
Monel	Titanium	Inconel	Nickel	Brass

Steel + Fibre

SS + PP	SS + GF	SS + PTFE	SS + PES	SS + PES
CS + Fibre	CS + Fibre Composites			

Non Metal

PP	PVDF	PTFE	PES	Glass Fibre
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MATERIAL TYPE COMPARISON

Material	Max Temp (°C)	Corrosion Resistance	Mechanical Strength	Typical Applications
Stainless Steel 304/316/316L	304: ~316°C 316/316L:~482°C	High (316 > 304)	High	Oil & gas, marine, chemical plants
Carbon Steel (CS)	~260°C	Low	High	Budget-friendly, general-purpose systems
Brass / Copper	~250°C	Moderate	Moderate	Cooling towers, vapor separation
Monel 400	~480°C	Excellent (seawater, acids)	High	Offshore platforms, acidic media
Inconel 600 / 625	>1000°C	Excellent (oxidation & extreme heat)	Very High	Power plants, harsh chemical environments
Hastelloy C22 / C276	~600°C	Exceptional (oxidizers, acids, chlorides)	High	Fertilizers, pharma, Flue gas scrubbers
Duplex / Super Duplex	~600°C	Very High (chloride cracking resistant)	Very High	Offshore rigs, marine exhaust systems
Titanium (Gr 2 / Gr5)	~600°C	Excellent (chlorides, seawater)	High	Chlor-alkali, marine pharmaceutical
Nickel	~600°C	High (caustic alkalis)	High	Electrochemical, alkaline systems
Alloy 20 (Fe-Ni-Cr-Mo- Cu)	~600°C	Excellent (sulfuric acid)	High	Acid recovery units, towers, reactors
Polypropylene (pp)	100°C	Moderate	Low	Scrubbers, low-temp water treatment
Polyester (PES)	120°C	Fair	Low	General gas-liquid separation
PVDF	140°C	High	Low	Chemical processing, high-purity towers
PTFE (Teflon)	260°C	Excellent	Low	Acid/alkali towers, pharma, specialty chemicals
Glass Fibre (GF)	400°C	Good	Moderate	High- temperature exhaust or acid towers
PTFE Coated Glass Fibre	260°C	Excellent	Moderate	Harsh acid gas towers, non- stick applications
SS + Polypropylene (PP)	100°C	Moderate	Moderate	Scrubbers, low - corrosion industrial systems
SS + PTFE	260°C	Excellent	High	Harsh chemical towers pharma - grade units
SS + Glass Fibre (GF)	400°C	Good	High	High-temp towers, acid vapor recovery units
SS + Polyester (PES)	120°C	Fair	Moderate	General- purpose gas-liquid separation
CS + PP / PES	100°C	Low to Moderate	Moderate	Budget-friendly, mild service conditions

TECHNICAL SPECIFICATION

Item	Density (kg/m ³)	Free volume (%)	Surface area (m ² /m ³)	Other companies model					
				Becoil	Metex	Knitmesh	Vico-tex	Koch	York
AMB-DEM-1	80	99.0	158	954	Hi-Thruput	4536	160	511	931
AMB-DEM-2	120	98.5	210						422
AMB-DEM-3	144	98.2	280		Nu-Standard	9030	280	911	431
AMB-DEM-4	128	98.4	460				415	706	326
AMB-DEM-5	193	97.5	375	890	Xtra-Dense	9033	380	1211	421
AMB-DEM-6	300	96.2	575						
AMB-DEM-7	390	95.0	750						
AMB-DEM-8	220	97.2	905						
AMB-DEM-9	432	94.5	1780		Multi-Strand		800		333
AMB-DEM-10	220	97.2	428		Wound				
AMB-DEM-11	160	96.7	5000						371

¹ density 80 is suitable for both metal materials and plastic materials.
Other models is only suitable for metal materials.

APPLICATIONS

AMB-DEM demister pads efficiently separate liquid droplets from gas streams, enhancing mass transfer, reducing product loss, and protecting downstream equipment. Typically installed at the top of process towers or between trays to improve separation they remove mist as fine as 3–5 microns. They are also used in gas filtration systems and as shielding components against electromagnetic interference.

Chemical Processing

Oil and Gas

Power Generation

Water Treatment

Food & Beverage

Petroleum Refineries

Pulp and Paper

Automotive

and many more

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