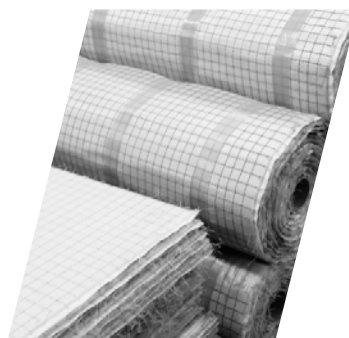
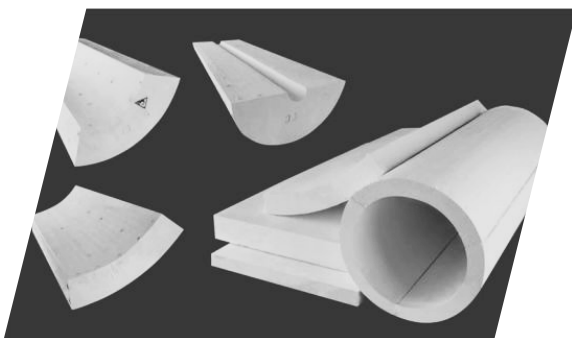


# Wedge India

## Microporous Pipe Insulation

Microporous Pipe Sections | Overstitched | Aerogel



## FSMP-MPS | Microporous Moulded Pipe Section

FSMP-MPS is high density microporous moulded pipe sections for pipe insulation purpose. FSMP-MPS is manufactured by mixing high quality agglomerates of high quality fumed silica, opacified blend of pyrogenic silica with a filament reinforcement, it is available in a 1000 grade and is enhanced in a variety of coverings, such as glass fibre, glass fibre cloth or aluminium encapsulation. These pipe sections are most suitable to achieve a very narrow range of optimum highest possible porosity and unique range of densities to deliver a product with lowest possible heat loss through conduction, convection, radiations, and gaseous conduction. The thermal conductivity of Microporous insulation is lower than the still air at high temperatures.

### Advantages

- Very high insulation, extremely low thermal conductivity.
- Very thin insulation to save space.
- Reduce insulation thickness by 4 times.
- Reduce heat loss and shell temperatures.
- Reduce energy cost and increase productivity.
- Non combustible A1 classification.
- Environmentally friendly, free of organic binders

### Applications

- Petrochemical Pipe Insulation
- Concentrated Solar Thermal Power
- General Pipe Insulation
- Glass, cement, and ceramics industry
- Refineries, Oil & Gas Industry
- Fuel cells & Thermal Batteries insulation

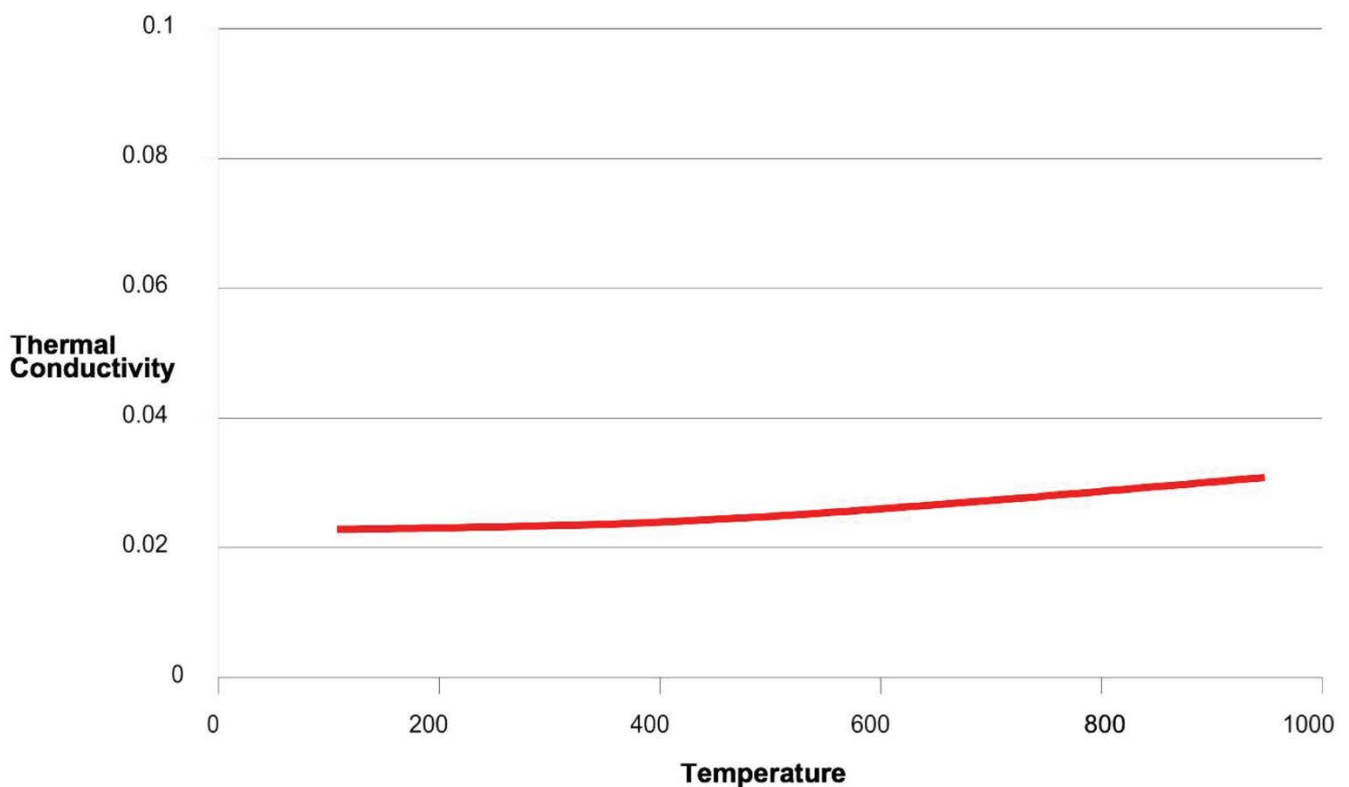


### Technical Data

Quality		FSMP 1200	FSMP 1000S	FSMP 1000T	FSMP 900	FSMP 1200HD
Strength		High	Medium	High	Low	Very High
Colour		Grey	Grey	Brown	Grey	Grey
Density	kg/m <sup>3</sup>	280 - 320	300 - 320	320	240 - 280	360 - 480
Classification Temperature	°C	1200	1000	1000	900	1200
Non combustibility test Classification		A1	A1	A1	A1	A1
Compressive strength at 10% (ASTM C 165)	MPa	0.33	0.32	0.34	0.32	0.55
Thermal conductivity (ISO 8302, ASTM C177)						
	200°C W/m.K	0.023	0.022	0.021	0.022	0.032
	400°C W/m.K	0.024	0.024	0.022	0.025	0.038
	600°C W/m.K	0.026	0.028	0.028	0.032	0.045
	800°C W/m.K	0.029	0.033	0.031	0.038	0.062
Specific Heat Capacity						
	200°C kJ/kg.K	0.89	0.86	0.92	0.92	0.88
	400°C kJ/kg.K	1.01	0.92	1.01	1.01	0.98
	600°C kJ/kg.K	1.04	0.96	1.03	1.03	1.03
	800°C kJ/kg.K	1.07	1.01	1.08	1.08	1.06
Shrinkage (ISO2477) one side 12h @1000°C Full soak	%	<0.5	<0.5	<0.5	<0.5	<0.5
Coverings		Aluminium Foil, E-Glass Cloth, Ceramic Paper, Mica, Millboard, Steel				
Lengths	mm	500				
Shell Dia	mm	As per Pipe Specs				
Thickness	mm	25				

## Selection Codes for Pipe Sizes & Dimensions

PIPE DIMENSIONS		FSMP – PIPE SHELL		
Nominal (DN) size (inch)	Outer diameter (mm)	Type (L=500mm, T=25mm)	Pipe Shells	Pipe Shells / Meter
13 (1/2")	21	21 (ID 22mm)	2	4
19 (3/4")	27	27 (ID 28mm)	2	4
25 (1")	34	34 (ID 35mm)	2	4
32 (1 1/4")	42	42 (ID 44mm)	2	4
40 (1 1/2")	48	48 (ID 50mm)	2	4
50 (2")	60	60 (ID 62mm)	2	4
65 (2 1/2")	76	76 (ID 78mm)	2	4
80 (3")	89	89 (ID 91mm)	2	4
90 (3 1/2")	102	102 (ID 104mm)	2	4
100 (4")	114	114 (ID 117mm)	2	4
113 (4 1/2")	127	127 (ID 132mm)	2	4
125 (5")	140	140 (ID 145mm)	2	4
150 (6")	168	168 (ID 171mm)	2	4
175 (7")	194	194 (ID 199mm)	2	4
200 (8")	219	219 (ID 219mm)	6	12
250 (10")	273	273 (ID 273mm)	6	12
300 (12")	324	324 (ID 324mm)	6	12



## FSMP Overstitched | Microporous Insulation Blanket

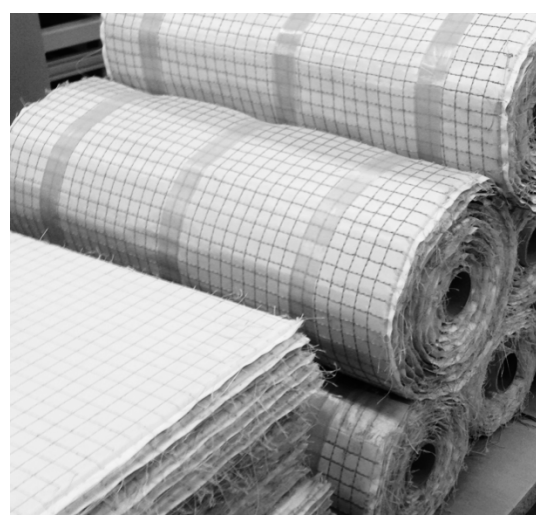
FSMP Overstitched are low density high performance microporous blankets for pipe insulation purpose. These blankets are manufactured by mixing high quality agglomerates of high quality fumed silica, opacified blend of pyrogenic silica with a filament reinforcement, it is available in a 1000 grade and is enhanced in a variety of coverings, such as glass fibre, glass fibre cloth or aluminium encapsulation. These pipe sections are most suitable to achieve a very narrow range of optimum highest possible porosity and unique range of densities to deliver a product with lowest possible heat loss through conduction, convection, radiations, and gaseous conduction. The thermal conductivity of Microporous insulation is lower than the still air at high temperatures.

### Advantages

- Very high insulation, extremely low thermal conductivity.
- Very thin insulation to save space.
- Reduce insulation thickness by 4 times.
- Reduce heat loss and shell temperatures.
- Reduce energy cost and increase productivity.
- Non combustible A1 classification.
- Environmentally friendly, free of organic binders

### Applications

- Petrochemical Pipe Insulation
- Concentrated Solar Thermal Power
- General Pipe Insulation
- Glass, cement, and ceramics industry
- Refineries, Oil&Gas Industry
- Fuel cells & Thermal Batteries insulation



### Technical Data

Quality		FSMP 1200	FSMP 1000S	FSMP 1000T	FSMP 900	FSMP 1200HD	
Strength		High	Medium	High	Low	Very High	
Colour		Grey	Grey	Brown	Grey	Grey	
Density	kg/m <sup>3</sup>	280 - 320	300 - 320	320	240 - 280	360 - 480	
Classification Temperature	°C	1200	1000	1000	900	1200	
Non combustibility test Classification		A1	A1	A1	A1	A1	
Compressive strength at 10% (ASTM C 165)	MPa	0.33	0.32	0.34	0.32	0.55	
Thermal conductivity (ISO 8302, ASTM C177)							
	200°C	W/m.K	0.023	0.022	0.021	0.022	0.032
	400°C	W/m.K	0.024	0.024	0.022	0.025	0.038
	600°C	W/m.K	0.026	0.028	0.028	0.032	0.045
	800°C	W/m.K	0.029	0.033	0.031	0.038	0.062
Specific Heat Capacity							
	200°C	kJ/kg.K	0.89	0.86	0.92	0.92	0.88
	400°C	kJ/kg.K	1.01	0.92	1.01	1.01	0.98
	600°C	kJ/kg.K	1.04	0.96	1.03	1.03	1.03
	800°C	kJ/kg.K	1.07	1.01	1.08	1.08	1.06
Shrinkage (ISO2477) one side 12h @1000°C Full soak	%	<0.5	<0.5	<0.5	<0.5	<0.5	
Coverings		Aluminium Foil, E-Glass Cloth, Ceramic Paper, Mica, Millboard, Steel					
Lengths	mm	1000					
Width	mm	500					
Thickness	mm	3, 5, ,6, 7, 8, 10, 12, 15, 20, 25					

## AG06 650 | Aerogel Pipe Insulation

Wedge AG06 650 are low density, low thickness, flexible commercial grade Aerogel Blanket having extremely high performance in pipe insulation in both industrial and buildings applications. The AG06 650 aerogel insulation blankets are made of high quality silica aerogel and of glass fiber needled blanket.

### Applications

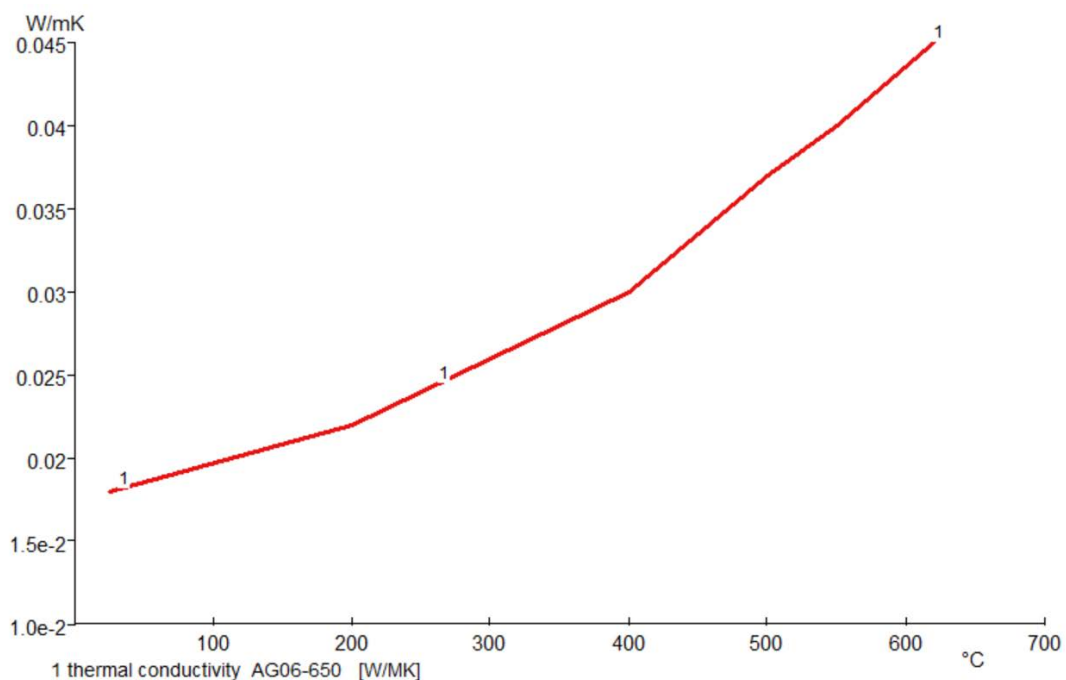
- Hot Water / Gas / Oil Pipeline
- High heat Steam Pipeline
- Petrochemical industry & power generation
- Back-up insulation in refractory lined pipes
- Exhaust systems
- Filler material for mattresses, cassettes, heat shields, expansion joints
- Prefabricated pipe with insulation
- Tanks, vessels and other equipment
- Pipe line insulation in Petrochemical plants
- Automobile, high-speed, train, and subway
- Building and Construction
- PFP (Passive Fire Protection)

### Features & Benefits

- Lightweight, thin, custom made & very flexible
- Noncombustible & Environmentally friendly
- Resistant to most chemicals
- Superior Insulation Performance
- 4 to 5 times better than traditional insulation products with longer service life
- Reduced Insulation Thickness
- Hydrophobicity and Fire-proof
- Repel water from penetrating into pipes
- A1 rating of fire-proof
- Transportation Costs Savings
- Lower packing volume and lower weight can greatly cut down logistics costs

## Technical Data

Properties	AG06 650
Base Materials	Aerogel Silica
Classification Temperature, °C	650 to (-) 50
Thickness, mm	5, 10
Density, Kg/M3	220
Thermal conductivity, W/m.K, at 25 °C	0.021





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