Technical Sheet

P S C -250T
Power Smart Coat

The multi-compound material designed for heat insulation and protection of metal surfaces from corrosion .

MAIN BENEFITS:

- Thermal insulation
- Anti-corrosion properties
- Convenient usage, allowing for both manual application using brush and mechanical spraying. This solution enables insulating of complex elements, such as: detailed designer elevation, technical installation etc.
- Low labour costs, comparing to traditional installations,
- Low density of the coating, which does not add additional weight to installations,
- Even and continued structure that ensures the same ratio of insolation of the whole surface,
- Due to its water dilution ability, the coating is environmental friendly,
- It is universal in application, allowing for usage on many surfaces, including metal.

Application:

PSC-250T is highly effective for insulating hot and cold water pipelines and conditioning installations. It also protects from frost exposure and on-surface condensation of vapour. The product is durable and has a high adhesion to metals, without causing corrosion. It is non-toxic and does not create dust during weather changes. PSC-250T is applied on both outer and inner walls and surfaces of pipelines, buildings, boilers, chimneys and industrial equipment. It provides a high level of adhesion to all known materials and works as a vapour resistant compartment. Due to its ecological and safety features, the product can be applied both outside and indoors. PSC-250T reflects 91% of infrared sun radiation. It can be coloured to any shade, including using water dispersion based paints.

DANE TECHNICZNE:

Wg PN-EN 15824:2010

No.	Parameter	Method of examination	Declared value
1	Vapour penetration factor: - Vapour penetration factor V [g/m^{2}d]	PN-EN ISO 7783:2011	 6,2±0,15
2	Water absorption [m^2*h^{0,5}]	PN-EN 1062-3:2008	0,01±0,2
3	Adhesion to surface[MPa]	PN-EN 1542-3:2000	≥1,0
4	Thermal durability [MPa] - after 20 cycles of freezing and refreezing	PN-EN 13687-3:2002	 2,0±0,8
5	Adhesion[MPa] - to metal - to concrete	PN-EN 1542-3:2000	 ≥0,8 ≥1,0

Supplementary parameters

No.	Parametr	Method of examination	Declared value
1	SBI examination to check fire reaction	PN-EN ISO 13832:2010	C-s1, d 0
2	Classification due to fire reaction: - flame range above 150 mm above flame application point during 60 s - appearing of flaming droplets /solid wastes causing the ignition of filtering paper.	PN-EN 13501-1+A1:2010 - Fs≤ 150 mm during 60 s - lack of flaming droplets /solid wastes causing the ignition of filtering paper.	 - match - match
3	Ratio of heat conduction [W/mK]	PN-EN 1745:2004; PN-EN 1745:2004/Apl:2006	0,093
4	Density volume [g/cm^3]		Approximately 0,6
5	Efficiency [kg/m^2] with coating thickness of 1 mm		Approximately 0,7
6	pH		8-9

PREPARATION OF THE SURFACE

PSC can be applied directly on corroded, but solid surfaces. Prior to application, the surface must be cleared out of dirt, dust, old coating and loose parts, such as petals of rust. When clearing a metal surface, it is advised to use a wire brush or sanding disc. The surface must be dry, bereft of greasy and oily parts, which can be removed using appropriate mixture. Smooth surfaces needs to be tarnished mechanically, then cleaned of dust and washed with water. On order to level a rugged surface, we advise to use a pressure washer.

PREPARATION OF THE COATING BEFORE APPLICATION

Before using the product, it is necessary to consult the manual. The coating can be diluted with water (dilute only the amount of paint, needed for immediate coating). Amount of used water vary, depending on the temperature of the surface and environment. The maximal input can be 3% of the coating mass.

During a prolonged storing, the coating can delaminate, but it is a natural process. In order to be restored to its prime condition, the coating needs to be stirred using a low-speed mixer (up to 150 turns per minute), until it regains a consistent density. Usage of higher mixing speed can result in damaging of microspheres and, in turn, loss of the insulating properties.
The estimated mixing time is about 1-5 minutes while using a mechanical mixer, or 5-7 minutes if done manually. During the work session, the material needs to be mixed once per every 10 minutes.

APPLICATION OF THE COATING

It is advised to apply the coating using brush or painting aggregate, each layer not exceeding 0,5 mm. While using aggregate, it is best to follow the producer's guidelines. On smaller or narrow spots, it is advised to use a long-bristle brush, while large areas are best painted using aggregate with maximal pressure from 50 to 60 bars. Not all devices are compatible with the PSC coating. We recommend using devices manufactured by the GRACO company, since they fulfil all necessary requirements. It is suggested to avoid working with the coating during rainy weather. After completing a work session, all tools need to be washed with water. The estimated drying time of one 0,5 mm layer ranges from 2 up to 48 hours, depending on temperature and air humidity. The next layer can be applied only after the last painted one becomes dry. The minimal temperature for the coating to become dry is +5° C. It needs to be underlined that applying layers thicker than 0,5 mm is strictly prohibited, as it can cause the whole coating to delaminate. If applied on a surface with temperature of at least 80° C, the coating tends to dry quickly, in such case it is also advised to prime the surface with a diluted product (amount of added water about 40-50%). The estimated time of drying of the primed surface is about 1 hour.

STORAGE

PSC needs to be stored in a undamaged container, in temperature between +5° C and +30° C and protected from sun exposure. Transportation can be conducted in at least +5° C temperature. Containers must be secured in order to avoid freezing and damaging of the content during transportation.

REMARKS:

The described product is not classified as dangerous, information given below is only a recommendation.

Keep away from children, do not eat, drink or smoke during the work session. Wear personal protection gear, such as boiler suite, gloves and goggles. After contact with eyes, wash the irritated area with water and remove contact lenses. If the symptoms last longer, immediately contact the doctor. In case of accidental eating of the coating, immediately wash mouth and contact the doctor. In case of contact with skin, wash the irritated area thoroughly with water

and soap, then apply a cosmetic cream. If there is a need for medical help, show the sheet or label to the doctor. The coating is not classified as dangerous for environment and is not flammable in liquid form.

VALIDITY DATE

12 months starting from the date placed on package

LEGAL DOCUMENTATION

PN-EN 15824:2010- Requirements regarding outer and inner plasters on organic binders. Declaration of Appropriable Properties