HEAT INSULATION PAINT – CERAMIC PAINT WITH HEAT-INSULATING PROPERTIES

APPLICATION:

IN CONSTRUCTION:

- Historical, residential, commercial facilities
  - ✓ Concrete, bricks and other types of ceramic
  - ✓ Plasterboards (fit-out) – e.g. in the commercial facilities of plasterboard buildings, instead of using more expensive fire plasterboards, plastering and painting 2-3 times with decorative paints, cheaper plasterboards can be used, plastered, and painted 2-3 times with our paint. The non-combustible class B paint increases heat insulation, absorbs sounds and is decorative (white). Instead of painting the ceiling and the whole infrastructure black, our paint can also be used to paint recuperation, ventilation, air conditioning, heat and gas pipes, and thus heat/cold losses are decreased. The paint dampens sounds and does not condense.
  - ✓ Painting an old elevation with insulation compliant with old norms from the 1990s, where Styrofoam with a thickness of up to 8 cm was laid. Then it is enough to prime the elevation and paint it 3 times with our paint. This will increase energy efficiency and level thermal bridges.
  - ✓ Painting underground garages (walls, ceilings), staircases, emergency exit routes, external concrete stripes, foundations with a depth of up to 1m underground.
  - ✓ Painting the whole technical infrastructure of buildings (central heating, warm utility water pipelines, gas, water-pipes and sewerage systems, ducts) – instead of 5-6-cm covers, a 3-mm layer of our paint can be applied, and this way an increased cubic volume of properties can be gained from big investments. Instead of 10-12 cm in total, as regards the occupied area of covers on pipelines under the ceiling in garages, 3 mm are possible with the same effect.
- Removing 100% of thermal bridges, increasing heat insulation, increasing work comfort (cooler in summer and warmer in winter)
  - ✓ prevents condensation from metal elements
  - ✓ a lighter construction after applying the paint (e.g. it can hold a heavier load of snow)
  - ✓ soundproofing
  - ✓ increases safety (non-combustible class B paint)

IN INDUSTRY:

- Ceilings inside and/or outside the roof
  - ✓ removes 100% of thermal bridges, increasing heat insulation, increasing work comfort (cooler in summer and warmer in winter)
  - ✓ prevents condensation from metal elements
  - ✓ a lighter construction after applying the paint (e.g. it can hold a heavier load of snow)
  - ✓ soundproofing
  - ✓ increases safety (non-combustible class B paint)

- Internal and/or external walls
  - ✓ removes thermal bridges, increasing heat insulation, increasing work comfort (cooler in summer and warmer in winter)
  - ✓ prevents condensation from metal elements
  - ✓ a lighter construction after applying the paint

- ✓ soundproofing
  - when touched, the walls give the effect of heat (the metal sheet is not cold in winter or hot in summer). The painted wall reflects heat from the hand (it is easy to test organoleptically in 5 seconds).

- Concrete/structural columns inside, foundations
  - ✓ concrete does not freeze
  - ✓ does not condense
  - ✓ protects against dampness and mould
  - ✓ it is possible to paint foundations outside up to a depth of 1m in order to retain all properties

- Floor under floor heating (if included)
  - ✓ Because it reflects waves, this is an ideal solution for floors placed under floor heating.

- Steel and load-bearing structures for stores, overhead cranes, fixed and movable parts of production structures, water reservoirs for fire-fighting, gas storage tanks
  - ✓ does not condense
  - ✓ muffles noise (big difference in reducing noise)
  - ✓ extra anti-corrosion protection
  - ✓ increases fire safety (does not flame)

- Building infrastructure (warm utility water, central heating, gas pipelines, ducts, recuperation)
  - ✓ increases cubic volume (acts as a replacement for covers)
  - ✓ increases operational safety
  - ✓ no thermal bridges
  - ✓ does not condense

- Machines and devices (furnaces, forms of injection moulding machines/blow moulding machines, smoking chambers, freezers, cooling systems, etc.)
  - ✓ increases operational safety
  - ✓ no thermal bridges
  - ✓ does not condense
  - ✓ minimises heat losses
  - ✓ increases work efficiency

- Construction containers (for construction offices) painted externally and/or internally
  - ✓ warm in winter, cool in summer
  - ✓ does not condense
  - ✓ internal soundproofing (increased work comfort)
  - ✓ thermal insulation that does not make it more difficult to transport the containers to other construction sites. (In case of residual mechanical damage, it is possible to fix it immediately by painting it over with an additional layer of paint, using e.g. a paint roller.)

  Example: When only 2 layers of paint of ca. 2 mm are applied on the outside (by painting walls and the roof), the difference between temperature levels is ca. 10°C. The difference may be increased by painting on both sides or adding an extra layer of paint.
  Below is a video presentation from our customer who put two containers in an open area and painted one container twice externally, applying a layer of paint of ca. 2 mm, and installed air

conditioning, launching it on the minimum level and checking differences in power consumption. It was 42°C outside. The temperature in the containers differs by 10°C – it is cooler in the painted area.

- Fit-outs/refurbishing during developments for offices, break rooms, maintenance rooms in stores
  - ✓ As a rule, developed partition structures are filled with wool and enclosed by plasterboards. Then the cheapest grey plasterboards can be used instead of more expensive fire plasterboards. After plastering and priming, it is enough to paint both sides of partition walls with nanoisolation white paint. This way you can have
    * extra soundproofing
    * extra insulation
    * no thermal bridges
    * increased fire safety (class B)
    * top decorative layer, so coating with an additional paint layer is not necessary (cost is eliminated).