

UV COATED PAVING STONES AND STREET FURNITURES OF ISTON



WHY THE SURFACE PROTECTION IS REQUIRED



- ❧ *inadequate durable for fulfilling the service life*
- ❧ *quickly lose surface properties*
- ❧ *quickly and permanently stained by environmental influences*



WHAT IS THE UV COATING TECHNOLOGY?



☞ *UV coating technology is a permanent surface protection system based on UV coatings specifically for the production coating of concrete paving stones.*



WHAT IS THE UV COATING SYSTEM?



In principle, a high quality and permanent surface protection system requires the interaction of three different components:

- ☞ Compaction and inner-hydrophobisation of core and surface concrete (Hydro-functional concrete additives)*
- ☞ Coating system*
- ☞ Coating application*

FUNCTIONAL CONCRETE ADDITIVES



Appropriate structural concrete design for UV coating process.

Hydro-functional Concrete Additives

- *Superplasticiser chemical additives*
- *Hydrophobic chemical additives*

Dispersing Concrete Additives

- *Release agent chemicals*

EFFECTS of USING ADDITIVES



➤ *Hydrofobic effect*



Paving Stone without additives



Paving Stone with functional additives

EFFECTS of USING ADDITIVES



➤ *Efflorescence*



COATING SYSTEM



✧ *This system is based on the usage of coating chemical additives which are used as double layer by the aid of UV drying for the surface protection.*

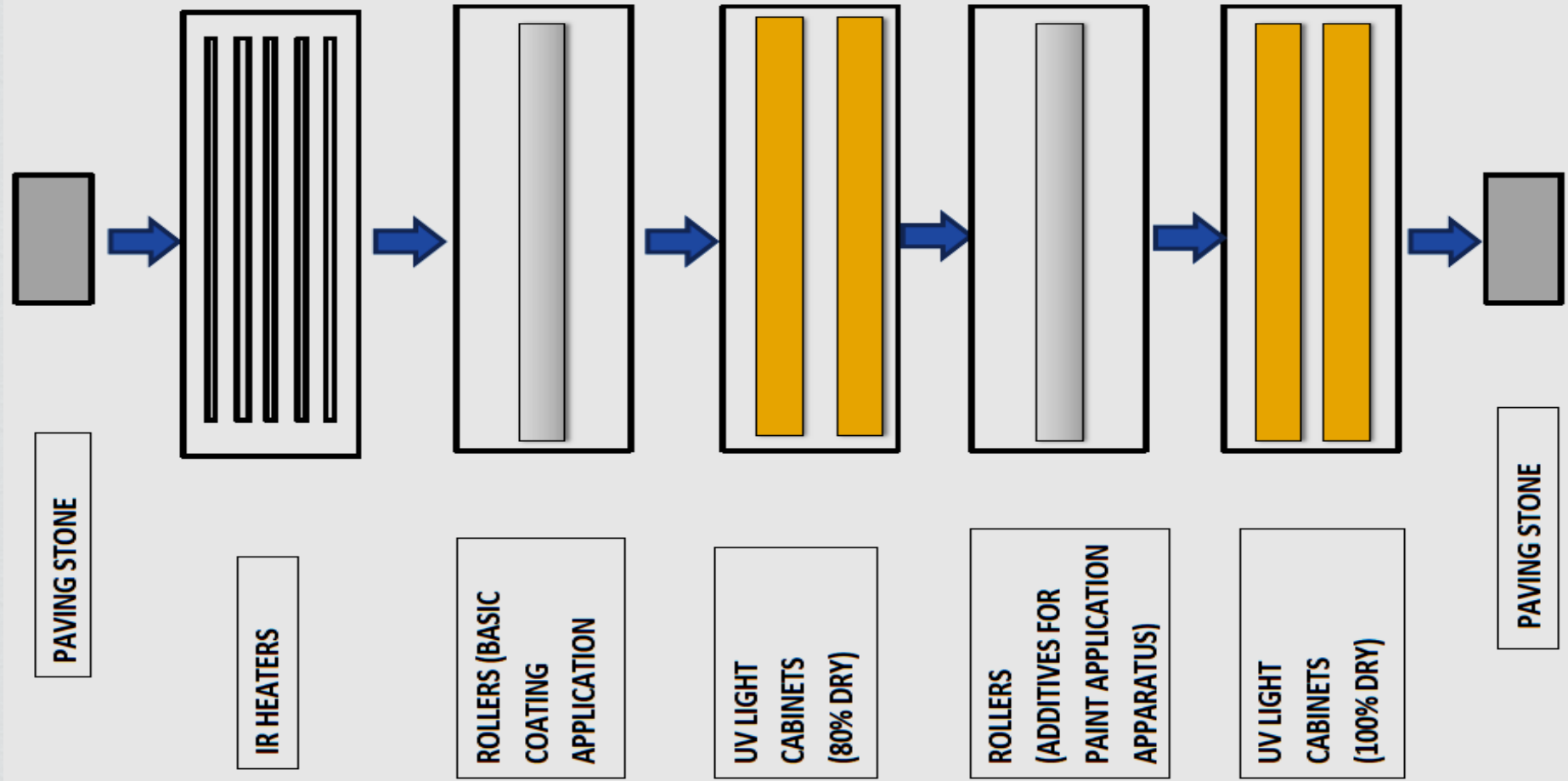
- *Basic Coating for first layer*
- *Protection Coating for second layer*

COATING APPLICATION



- ❧ *IR Heaters (Infrared)*
- ❧ *Rollers (basic coating application apparatus additive)*
- ❧ *UV Light Cabinet (80% dry)*
- ❧ *Rollers (additives for paint application apparatus)*
- ❧ *UV Light Cabinet (100% dry)*

COATING APPLICATION







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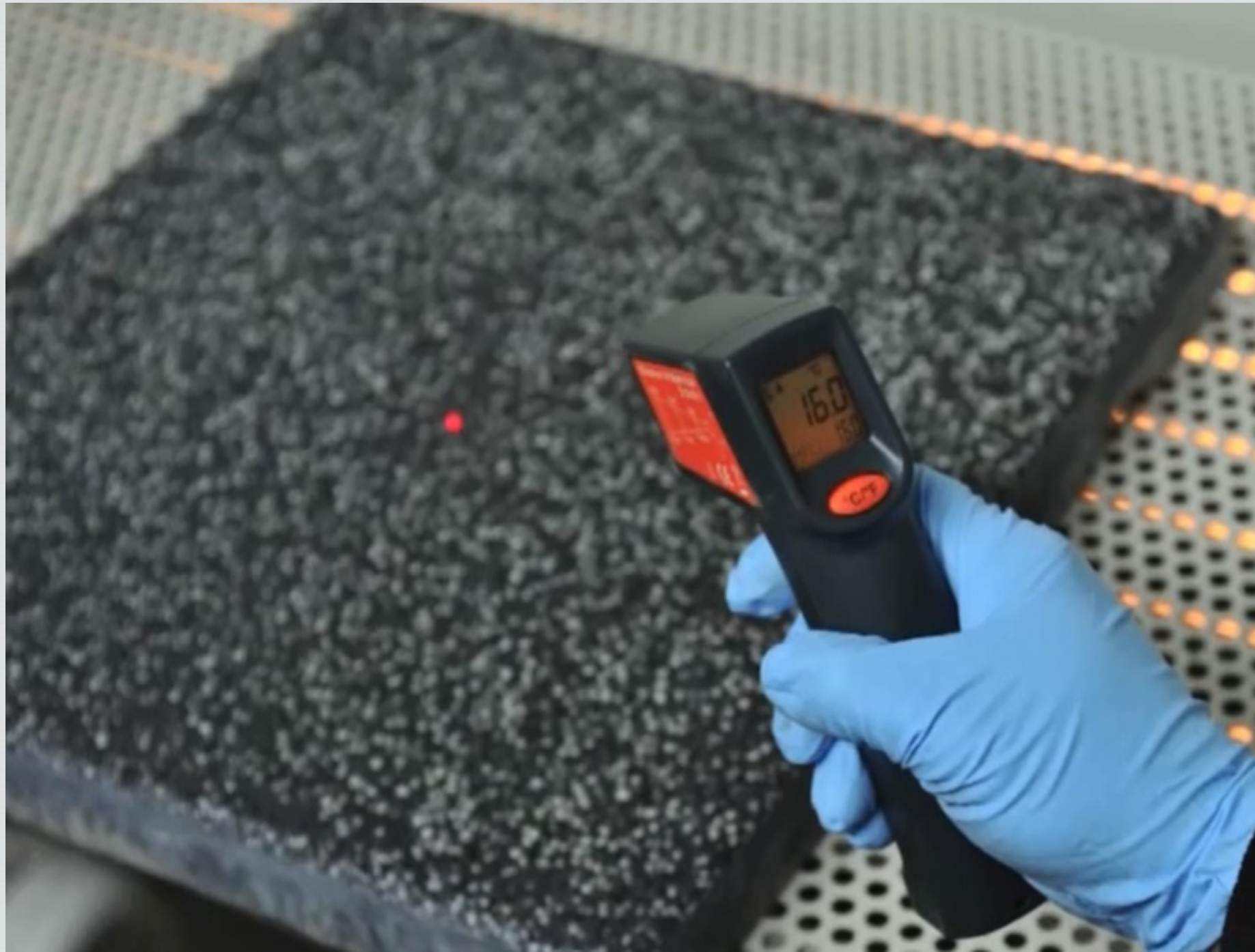


uv-unit

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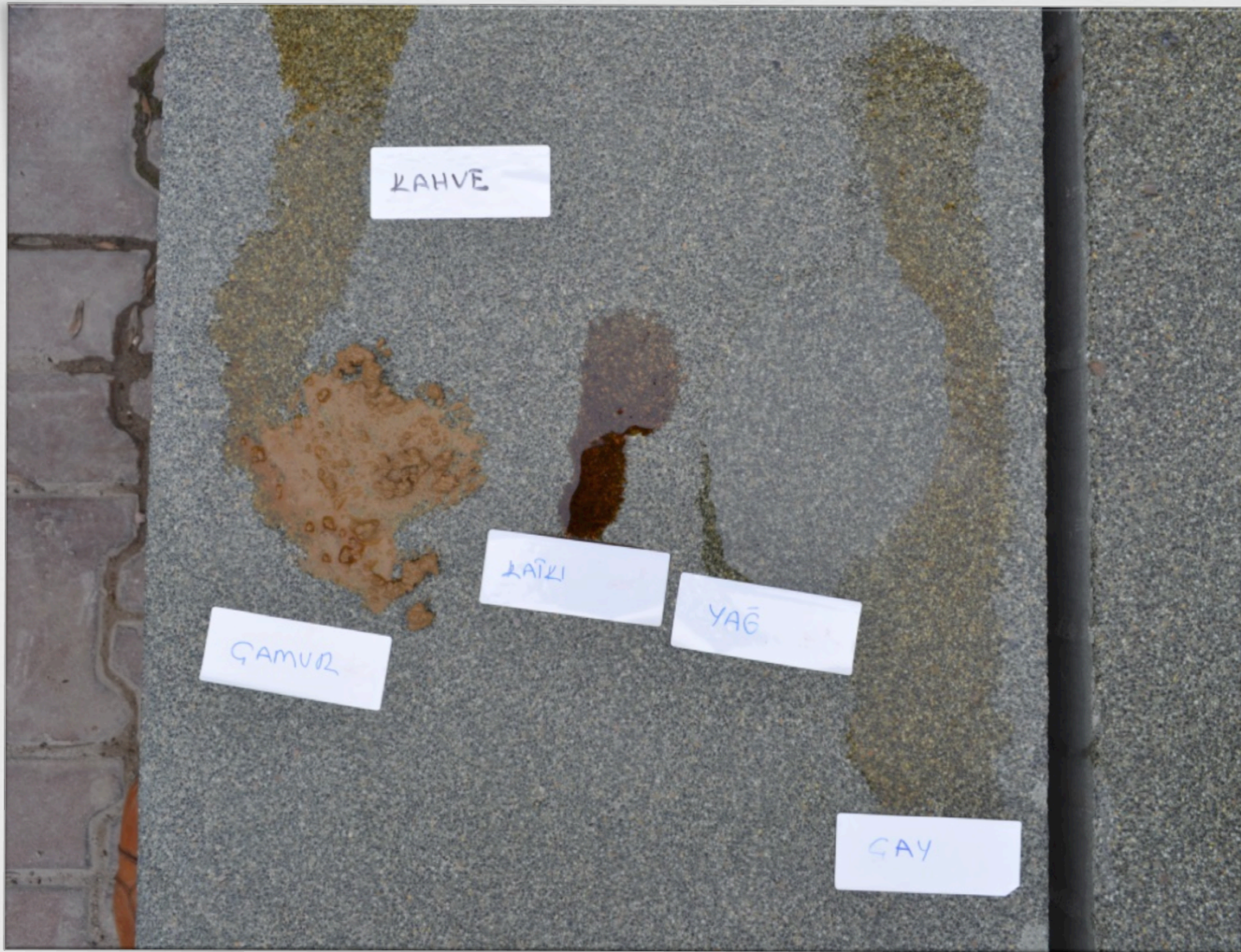
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*the surface application of UVcoated paving
stone with different pollutants*



*the surface application of standard paving
stone with different pollutants*



*the surface application of Standard and UV
coated paving stone*





After Cleaning the Surface of the Paving Stones

TECHNOLOGICAL AND ENVIRONMENTAL BENEFITS



- ❧ *Increased freeze-thaw resistance*
- ❧ *Increase of abrasion resistance*
- ❧ *Increased UV resistance*
- ❧ *Prevention of efflorescence*
- ❧ *Easy-to-clean*
- ❧ *Minimization of pollution*



THANK YOU