

Photocatalytic treatment for asphaltic pavements and roads.

A **PHOTOCRYL**® activated pavement uses the light energy to destroy the air pollutants. Thanks to it:

- ELIMINATES THE AIR POLLUTION
- AVOIDS THE ACCUMULATION OF POLLUTANTS ON THE SURFACE
- ELIMINATES THE POLLUTED AIR AGRESSIONS.
- REDUCES ODORS
- CONTRIBUTES TO PEOPLE'S HEALTH

PHOTOCRYL® is used to on asphaltic surfaces submitted to polluted environments, as streets, roads, and motorways, mainly in urban or industrial areas where traffic and chemical pollutants are concentrated. **PHOTOCRYL**® contributes to reduce pollution, to keep surfaces clean, and to reduce odours. It also limits the surfaces degradation caused by chemicals in the air. **PHOTOCRYL**® is currently applied on:

- Urban streets
- roads and Motorways
- Parking lots
- Asphaltic pedestrian areas

- PHOTOCATALYSIS

Photocatalysis is a technology that works under the same principles than Photovoltaic Panels (Solar cells). It uses light energy, in the range between visible and UVA, to destroy the pollutants produced by car exhausts pipes, industries, kitchens and heating, that affect human health and dirt.

- It is MAINTENANCE FREE, and its effect is PERMANENT.
- It is a CLEAN TECHNOLOGY
- It is not only a SURFACE CLEANER, but also an AIR DEPOLLUTER
- SAVES MONEY, as surfaces remain clean during years.
- DESTROYS the DIRT and reduces the growth of MOULDS AND BACTERIA
- Is a NATURAL effect and reproduces the activity of the sun and plants as depolluting agent.

Photocatalysis requires light energy to be activated.



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CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



UNIVERSITAT
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ISO 22197-1 Tests, made in the CSIC, show a 89% destruction of pollutants: 286 µg NO/m².h, so capacity to clean 7,2 m³ very polluted urban air each hour, per m², under test conditions.

-ASPHALT

Asphalt is a viscous liquid. It has a very high viscosity when cold, but never solidifies. Under standard sunny conditions it keeps its capacity of flowing.

To apply solid particles- as the photocatalytic minerals- on asphaltic surfaces, will result in a rapid absorption into the asphalt, so its deactivation.

PHOTOCRYL® creates a separation layer between the asphalt and the photocatalytic pigments, allowing a very long-term performance.

Performance of **PHOTOCRYL**®. Increases on old asphalt surfaces and on open-surface courses (porous or soundproof courses)

-APPLICATION

PHOTOCRYL® consists in two different layers, providing long term photocatalytic properties to the asphalt surfaces.

PHOTOCRYL® is applied on open or semi-open asphaltic surfaces, providing insulation and bonding between the surface and the Photocatalytic pigments.

PHOTOCRYL® is applied by spray.

PHOTOCRYL® first layer, acting as adherent, insulating and separation layer, is applied at a ratio around 100 gr/m². It is strongly recommended to do tests before to decide dosage. Surfaces must be clean and dry before application, and product must be applied homogenously on the asphalt surface avoiding product accumulation in the cavities. Second layer, **PHOTOACTIVA S**® is applied at a ratio of 150 gr/m² over the first layer, once first layer is dry enough to not stick at finger touch.

PHOTOCRYL® forms a superficial film that is not intended to resist the wear on the tires contact points, but in the pores and asphalt cavities.

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PhotoCryl

asphalt

activa

It is advised to wait some days before to apply the product on newly laid asphalts, to avoid fluid asphalt to run over the film, decreasing its activity. **PHOTOCRYL®** does not modify the surface properties: tyres grip, self drainage, sound absorption... Once applied, traffic can be open in 3-4 hrs, depending on weather conditions.

It is a translucent product. Horizontal road marks will not be altered.

Do not apply on horizontal surfaces if rain is expected in less than 24 hrs, due to wash off risk.

PhotoCryl. Waterborne dispersion system of Photocatalysts for asphalt, containing light boosters to be activated in the visible-UVA light range based on EPS technology, and long term resistant polymers.

PHOTOCRYL® asphalt destroys air pollution.



PhotoCryl does not change surface appearance.

-TECHNICAL DATA

Waterproofing waterborne photocatalytic dispersion for the reduction of pollutants and protection of surfaces in highly contaminated areas.

- No flammable. Waterborne milky liquid
- Transparent
- Density 1.15 ± 0.3
- Viscosity 45 ± 5 sp5
- pH $8.5 \pm .5$
- Touch dry 2 hrs at 25°C
- Allow 4-8 hrs to dry at 25°C before re-open traffic.
- Yield: 4-5 m²/l, but depending on surface
- Application temperature: between 5°C and 35°C
- Protect from frost.

All data given in our technical information and recommendations are based on our experience, technical knowledge, and practice, under established job and test conditions Customer must check consumptions and suitability under his job conditions, by previously testing it. Activa can provide technical assessment if required.

We guarantee the quality in case of production defects of our products, excluding further claims. Our responsibility is limited to the value of the goods supplied.

That TDS is valid until next edition is issued.

Active Walls .S.L

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