

SBS *Sigilplus*[®]

PROFESSIONAL
AND LONG-LASTING
HOT ROAD SEALING SERVICE



1 CLEANING

2 INJECTION

3 REDUCTION

TECHNOLOGY SUITABLE FOR



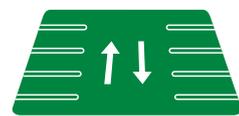
AIRPORTS



HIGHWAYS



URBAN AND
SUBURBAN ROADS



SQUARES



TRENTINO
SÜDTIROL

MOBILE PLANT CAPABLE
OF OPERATING AUTONOMOUSLY
THROUGHOUT ITALY
AND CENTRAL EUROPE

Manufactured and marketed by:

**BETON
ASFALTI**

We for you safe roads

CIS - TRENTO

INSTALLATION PHASES / SPECIFICATION ITEMS

SBS Sigil PLUS is a technology that uses a **mobile plant** for the installation **unique in its kind**, complete with all the professional equipment for the hot sealing of longitudinal and transverse cracks on the road surface, ensuring high productivity, rapid execution of construction sites, easy movement and high degree of independence.

With this mobile plant, **we operate throughout Italy**, including the islands, in complete autonomy.

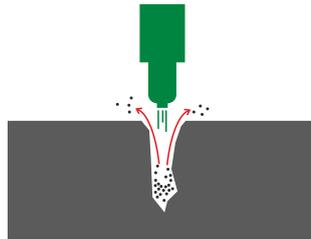
The service includes the following processes:

1 CLEANING

Deep cleaning of fissures and/or road cracks carried out with a jet of hot air at a pressure of 7 bar generated by a high-pressure compressor with a minimum flow rate of 2,600 litres/m, combined with a 35,000 calorie burner equipped with an air-to-air heat exchanger, so as to have an outlet temperature of 500 °C necessary to dehumidify and heat the walls of the crack.

The air will be conveyed through a special nozzle so that the operator can direct the high-pressure jet inside the crack and thus remove any dust and debris, and dry and heat the walls. This treatment must ensure optimal preparation of the surfaces in contact with the bituminous sealant so that it penetrates in depth and is highly adhesive.

The mobile equipment must comply with the applicable laws and regulations, be fitted with a flashing light and be properly marked.



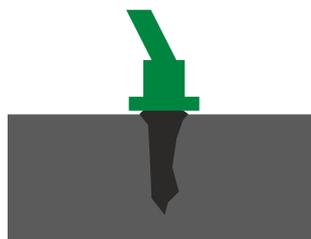
2 INJECTION

Hot injection of bituminous adhesive to obtain complete saturation of the cracks.

This process must be carried out with temperature-regulated equipment consisting of a 500-litre capacity melter capable of continuously melting batches of bituminous adhesive, so as to obtain a homogeneous bituminous mass at a constant, controlled temperature that varies from 180° to 240°C, depending on the characteristics of the adhesive required.

The injection will be carried out by means of a special electro-heated thermal nozzle manually carried by the operator and equipped with a suitable nozzle chosen according to the type of crack, so as to inject the adhesive only inside the crack and reducing as much as possible the external spreading of the adhesive. Any cleaning and shot blasting is excluded.

The mobile equipment must comply with the applicable laws and regulations, be fitted with a flashing light and be properly marked.



3

ROUGHENING

Surface shot blasting of the hot sealings carried out with a first category 2/4 mm inert material that has been selected, washed and pre-bituminised (3% binder percentage). This treatment must make the surface of the seal rough, thus ensuring adequate grip for mopeds and motorcycles and at the same time eliminating any glare phenomena. The grit must be spread using a specific mobile device equipped with a mechanical and programmable material extraction system so that the quantity can be dosed according to the width of the seal from a minimum of 100 g/mL to a maximum of 300 g/mL.

The equipment must be able to move with motorised advancement, controlled by a qualified operator, so as to follow the sealings to be shot-blast both on a flat surface and downhill, and must feature a suitable braking system and signal lights. The equipment must have adequate autonomy, both in terms of grit and distance, so as to be able to follow the cleaning and injection team continuously, adapting to its forward speed from a minimum of 0.07 m/sec to a maximum of 0.15 m/sec. The equipment must also feature a suitable mechanical system for any surface heating of the adhesive bed, so as to ensure proper adhesion of the pre-bituminous grit, in the event that, due to particular work situations or adverse climatic conditions, the surface temperatures of the sealant are below 60°C.



NEW

ANTISKID PLUS - SHOT-BLASTING MACHINE

AntiSkid Plus is a machine specially designed by **Beton Asfalti** for the realization of the blasting system.

It is composed of an electric motor that guarantees a continuous advancement, with respect to the sealing machine, of a variable grit dosing device as well as of a possible heating system of the bitumen bed in case of adverse climatic conditions.



GRANIGLIA GRIP PLUS



GranigliaGrip Plus is a pre-bituminised basaltic aggregate (3%) specifically designed by Beton Asfalti to finish and optimise road seals formed using **SigilRapid Plus** technology. Its functions are to give grip to the seal made, allow the immediate transit of vehicles, avoid glare phenomena camouflaging the work with the road surface. **GranigliaGrip Plus** can be laid by hand or with the aid of the appropriate professional equipment "AntiSkidPlus".

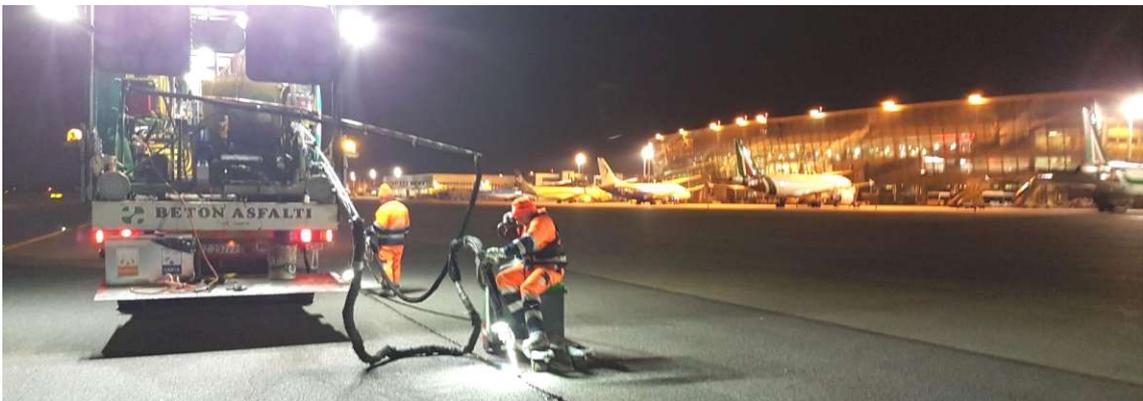


SEALING ON DRAINING FLOORS

In collaboration with CAV Spa, Concessioni Autostradali Venete, Beton Asfalti has experimented with **SBS SigilPlus** technology for the sealing of cracks on joints in the laying of draining pavements. At the end of the trial run, the project management team found that the work carried out did not cause any loss of the draining capacity of the floor itself.

MICRO CRACK TREATMENT

In the presence of very narrow but deep cracks/fissures, with a special mechanical machine, the preparation of a box of at least 9 mm of width necessary to ensure a proper ratio of elasticity between the bituminous adhesive and any movements of the existing floor.



ADDITIONAL SERVICES

Signposting



Construction site signage service organised according to customer instructions and installed using mobile trolleys or fixed signs or hand signals for traffic management.

Night work



Nightworkservice. The mobile plant is equipped with a suitable lighting system for sealing works from 8 p.m. to 6 a.m.

Sandblasting



High-pressure sandblasting service of road fissures/cracks in order to remove deep-seated vegetables and oil stains, so as to ensure perfect adhesion of the bituminous adhesive; minimum 100m.

PREVENTIVE MAINTENANCE

The best way to preserve and increase the life of asphalt pavements is to adopt a proper preventive maintenance policy. In this context, the hot sealing of the cracks that are created at the sealing points of the paving and in correspondence with the subsidence of the road surface proves crucial.

In the event of rain, the water compressed by the car wheels into the cracks causes a constant increase in their size until they become branched cracks and then holes.

To overcome these problems, we have created the **SBS SigilPlus** hot-sealing system, the only technology based on three processes.

PAST

The first sealings originally involved the simple pouring of bituminous adhesive. This created a large strip of material on the floor that did not penetrate into the crack that was easily removed by traffic and slippery.



PRESENT

Our **SBS SigilPlus** system involves cleaning the crack with high-temperature compressed air, injection of a bituminous adhesive modified with **SBS** in depth, and a roughening shot-blasting surface treatment. In this way, we create a space-saving and camouflaged seal in the road surface.



PROPERTIES OF THE SEALANT

Thanks to the use of different types of nozzles, it is possible to apply SBS SigilPlus technology on any type of road surface crack. We have different bituminous adhesives, depending on the type of application, whether on roads or at airports, which are also resistant to hydrocarbon leaks.



CONICAL



PLATE

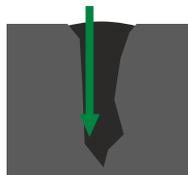


SPHERIC

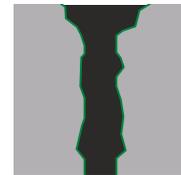
HIGH
ELASTICITY



DEEP
PENETRATION



EXCELLENT ADHESION
TO WALLS



TESTED AND APPRECIATED



autostrade // per l'italia
La passione di muovere il Paese



Provincia di Vicenza



Provincia Monza Brianza



Provincia di Asti



Provincia Autonoma di Trento



Comune di Milano

COMPLETE RANGE OF PROFESSIONAL PRODUCTS FOR ROAD MAINTENANCE

<i>plus</i> KALT ASPHALT	<i>plus</i> MALTA RAPID	<i>plus</i> SIGIL RAPID	<i>plus</i> VIBRO BLOCK
HOLES	MANHOLE COVER	JOINTS	NOISE

HOT ROAD-SEALING SERVICE

CLEANING **INJECTION** **ROUGHENING**

Manufactured and marketed by:



CIS - TRENTO
Phone +39 0463 533252
Mobile +39 338 801 5570
vendite@betonasfalti.it
www.betonasfalti.it

DEALER