

# TECHNICAL DOCUMENTATION



## PREMIUM ASPHALT

For road repair  
Hot-manufactured, cold-applied



Simple, Fast, Durable



Compatible with ecological transition



It enhances exploitation performances

**Rapid**Asphalt®

## RAPID ASPHALT®

### Hot-manufactured, cold-applied premium asphalt

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Hot-manufactured, cold-applied, high performance and durable bituminous asphalt mixture. It integrates the environmental impact over the entire life cycle. The product is composed of a mixture of selected aggregates and a bituminous binder modified with BIOROAD®, a very innovative additive. Rapid Asphalt also contains RARX®, a rubber and graphene-based additive (NFVU), specially formulated for road maintenance.

### PRODUCT DESCRIPTION

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Bituminous mixture type AC11 50/70 of continuous grain size, with an aggregate size of up to 11 millimetres. 30% of these aggregates come from the reuse of road scraping. It is hot-manufactured in conventional facilities at average temperatures between 140 and 160°C according to a quality reference certified by the CE mark. It can be stored in its packaging for 120 months until application on site.

BIOROAD® is a polymerized additive made of recycled vegetable oil, graphene and other components which ensure stability and allow the lubrication of aggregates. It can therefore be applied at a temperature ranging from -30 to +50°C.

Once applied and compacted, the passage of vehicles causes the additive to change its state

until it reaches the expected mechanical properties. In addition, thanks to BIOROAD®, the manufacturing process is performed at 40°C less than similar mixtures. This allows to reduce CO<sub>2</sub> emissions of the production process by 50%.

RARX® is a powdered additive, composed of 60% end-of-life tire powder (NFVU),

16% of bitumen (± 3%), limestone filler and 26% of additives (± 5). Before adding the bitumen, this product is incorporated in the mixer, together with the aggregates. The behaviour of mixtures manufactured with high RARX® content is similar to that of bituminous mixtures made of modified and high viscosity bitumen.

The incorporation of RARX® additive and graphene in the bituminous mixture contributes to the improvement of its mechanical properties, obtaining a more effective response to fatigue stresses and thermal susceptibility. It has a more elastic initial behaviour, aiding structural response, reducing deformation under load, and improving resistance to cracking, while creating a more resistant and durable compound, helping to reduce noise on the road.



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BREVETE

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[www.rapidasphalt.com](http://www.rapidasphalt.com)

## PRODUCT INFORMATION

<b>Composition</b>	Aggregate, RARX®, BIOROAD®, Graphène
<b>Presentation</b>	15kg bag
<b>Appearance/Colour</b>	Black
<b>Preservation</b>	120 months from the manufacturing day in its original packaging and 36 months after opening.
<b>Storage conditions</b>	Keep the product in its original package at a temperature between -30°C and + 50°C. Store in a dry place at a temperature above 0°C.
<b>Density</b>	Densité apparente: ~1.800 kg/m <sup>3</sup> (par +20°C) Produit compacté: ~2.300 kg/m <sup>3</sup> (par +20°C)
<b>Hardening</b>	Immédiat par compactage
<b>Impermeability</b>	98%
<b>CE mark</b>	2249/CPR/MB.FT91
<b>Aggregate type and ventilation</b>	Mixed aggregate type AC11
<b>Preparation</b>	In areas of application with a surface greater than 0.50m <sup>2</sup> , it is advisable to apply a previous coat with the RENOVA product.
<b>Consumption</b>	2,3 kg/m <sup>2</sup> /mm
<b>Aggregate</b>	Per 1,000 kg of RAPID ASPHALT - 10kg (+/-5%) of RARX® aggregate - 15% (+/-5%) of BIOROAD with GRAPHENE
<b>Package composition</b>	100% recycled plastic 2.36g of CO <sub>2</sub> per bag

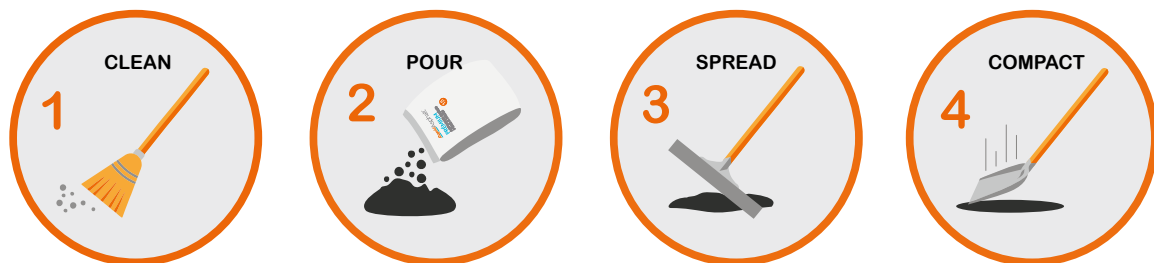
## FEATURES / BENEFITS

- Ready to use. No prior treatment needed
- Easy to apply, no need for special tools or heavy vehicles
- Applicable at extreme temperatures, from -30 to 50°C all year round, even in case of rain or snow
- Ideal particle size for the application in small repair areas
- Ergonomic 15kg bag, easy to handle
- Once applied, traffic can be immediately restored
- It can be stored up to 10 years in its packaging and 3 years after opening
- The presence of rubber in the mixture helps to reduce noise
- 10 times less carbon footprint than traditional mixtures
- CE certified manufacturing process

## APPLICATIONS

- Pothole repair on all roads
- Filling of trenches, signalling, repair of sewers and manholes
- Recommended for those areas where only a small amount of bituminous coating must be applied and, therefore, no machinery needs to be used.
- It can be used on bituminous and concrete substrates (after application of a prime coat)

## APPLICATION TIPS



The base must be as clean as possible, free of any contaminants such as grease, oils, oxides, etc. The work area can be damp or contain water, as RAPID ASPHALT is 98% waterproof, however the more water there is, the longer the curing time will be. It is recommended that the material be completely surrounded at the site of application, so that the areas which end at zero level should be recessed, leaving the necessary thickness.

On surfaces below 50cm<sup>2</sup>, pothole type, the base primer is not necessary. It is by no means recommended unless it can be applied evenly. In case of using primer, a tolerance of 300g/m<sup>2</sup> is recommended.

Pour the product onto the surface to be covered, leaving an excess thickness of at least 20% above the level of the roadway.

The compaction will depend on the thickness to be treated: the deeper the treatment, the larger the compactor must be. However, in the most common cases, the process of compaction and hardening will continue thanks to traffic, so it can be done with compacting and tamping machines, small rollers, etc.



The curing time will depend on the initial compaction, vehicle traffic and weather.

## ENVIRONMENT

Transformation of tires at the end of their life (NFU) into asphalt mixtures such as RAPID ASPHALT - Environmentally friendly repair asphalt.

A pallet of 72 bags, each containing 15 kg of Rapid Asphalt®, uses two (2) End of Life Tires (NFU), 20L of recycled vegetable oil, 30% of aggregate coming from road scraping and recycled plastic for packaging production.

Over the entire product life cycle, Rapid Asphalt® produces 10 times less CO<sub>2</sub> emissions than similar products.



30% RECYCLED ASPHALT\*



20L RECYCLED VEGETABLE OIL



2 MICRONIZED TYRES\*



100% RECYCLED PLASTIC BAG

**For a 3 cm coat, 1700 tires would be recycled per km of road!**

In order to respect three R's rule, our production partner pursues its environmental policy which places recycling as the smart choice in all production processes: "We are working hard to comply with the rule of the three R: we recycle, reduce and reuse our products to generate the least amount of waste, reduce emissions and fight climate change."

## NOTE

All technical data shown in these product data sheets are based on laboratory tests. Actual measurements of this data may vary due to circumstances beyond our control.







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<https://youtu.be/IO5AObtdSxk>



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**Rapid**Asphalt®