

**EXTRA
PERFORMANCE
FOR BITUMEN
AND EMULSIONS.**



Making progress, possible.

EXTRA PERFORMANCE FOR **BITUMEN** AND **EMULSIONS**.

1. EP and Repsol Refining
2. Quality and Specifications
3. Packaging, Handling and Heating
4. Technical Support and Export Finance.

EP INTERNATIONAL AND REPSOL REFINING



EP International manages the complete supply chain, from **refinery to road**, allowing their customers to trust that the right grade of bitumen will be available, when it is needed and where it is needed.

EP International focuses on supplying **EXTRA PERFORMANCE** Bitumen and Emulsions for Heavily Trafficked Roads which:

1.

Reduce both initial and life cycle costs

2.

Use less raw material, resulting in cost and environmental benefits

3.

Enable faster construction

4.

Extend pavement life

EP International is the packaging partner for Repsol, Spain's largest oil producer and refining company.

EP International has recognised that many countries only have access to a limited number of bitumen grades, so road designers are technically constrained.

In response, EP International has developed unique packaging systems so that all Repsol bitumens can be delivered, in conventional shipping containers, worldwide.

Availability of these products allows governments and road agencies to use the right bitumen grade for each individual project,

rather than to simply specify what is available in the local market.

Compromising on grade selection can result in premature failure or the need for early maintenance and additional spending from constrained budgets.

Using the right grade means that the durability and performance of the road is improved, providing better value for money.

EP INTERNATIONAL, WORKING WITH REPSOL REFINERIES

- Repsol refineries
- Repsol crude oil pipeline
- Repsol pipeline
- Other pipelines



Under a long term contract, EP International's packaging unit is located inside the Cartagena refinery and is directly connected to the Bitumen production units.

This connection guarantees continuous supply throughout the year.

The Cartagena refinery, which covers more than 190 hectares, is a new generation refinery, and is one of the most complex and efficient refining systems in Europe. It has received more than €3 billion in investments, doubling capacity to 11 million tonnes per annum.

Sector leaders

Repsol operate some of the most efficient refining in Europe, which allows them to generate higher value products with a lower carbon intensity.

6 refineries

Five of which are interconnected and operate as one 24 hours per day, 365 days per year.

Logistical advantage

Distribution from the two most important points in Europe: the Atlantic Ocean and Mediterranean Sea.

1 million +

Barrels per day refining capacity across Repsol industrial complexes.

GUARANTEED QUALITY



All product are subjected to a number of controls, tests and reporting. All package labels include a QR Code that scans to documentation relating specifically to that bitumen batch.

- Batch numbering system with full traceability from refinery tank to product on site
- Clear and unique identifying packaging labels for each unique package
- Accredited laboratory testing according to relevant international standards (EN, ASTM, AASHTO)
- Issuance of Certificate of Analysis
- Weighing with scales calibrated by external third party
- Issuance of Certificate of Quantity
- Shipping container inspection before loading with condition photographs at each stage of loading



**CONFORMITY CERTIFICATE OF
FACTORY PRODUCTION CONTROL** **Certificate No.**
1035-CPR-ES120742



**ISO 9001:2015 Quality
Management System** **Certificate No.**
ES120675-1

**ISO 14001:2015 Environmental
Management System** **Certificate No.**
ES120674-1

BITUMEN TO INTERNATIONAL SPECIFICATIONS

EP International produces and tests Bitumen and Bitumen Emulsions to many international standards.

Penetration and Viscosity Graded Bitumen

EN 12591
Bitumen and bituminous binders:
Specifications for paving grade bitumens.

AASHTO M320
Standard Specification for Performance
Graded Asphalt Binder.

ASTM D946
Standard Specification for Penetration-Graded
Asphalt Binder for Use in Pavement Construction.

ASTM D3381
Standard Specification for Viscosity-Graded Asphalt
Cement for Use in Pavement Construction.

SANS 4001-BT1
Penetration Grade Bitumen.

Performance Graded Bitumen

AASHTO M320
Standard Specification for Performance Graded
Asphalt Binder.

AASHTO M332
Standard Specification for
Performance-Graded Asphalt

Binder Using Multiple Stress Creep Recovery
(MSCR) Test.

SATS 3208
Performance Grade (PG) specifications
for bitumen in South Africa.

Cationic Bituminous Emulsions

EN 13808

Hard Grade, High Modulus Bitumen

EN 13924-1
Bitumen and bituminous binders - Specification
framework for special paving grade bitumen - Part 1:
Hard paving grade bitumens.

SABITA Manual 33
Design procedure for High Modulus Asphalt EME2.
Described in: Austroads report AP-T283-14.

Multigrade

AASHTO M320
Standard Specification for Performance Graded
Asphalt Binder.

AASHTO M332
Standard Specification for Performance-Graded
Asphalt Binder Using Multiple Stress Creep Recovery
(MSCR) Test.

SATS 3208
Performance Grade (PG) specifications for bitumen
in South Africa.

Multigrade Plus

EN 13924-2
Bitumen and bituminous binders. Specification
framework for special paving grade bitumen.
Multigrade paving grade bitumens.

AS 2008
Bitumen for pavements

AASHTO M332
Standard Specification for Performance-Graded
Asphalt Binder Using Multiple Stress Creep Recovery
(MSCR) Test.

SABITA MANUAL 35 / TRH 8
Design and Use of Asphalt in Road Pavements.

Polymer Modified Bitumen

EN 14023
Bitumen and bituminous binders.
Specification framework for polymer
modified bitumens.

PACKAGING, HANDLING AND HEATING

BitBox®

The **BitBox®** system for all grades of Bitumen and Extra Performance Bitumen.

1.2 tonnes of Bitumen in a polypropylene bag, inside a specially designed box with integral pallet.

20 BitBox® in each shipping container for an optimised 24 tonnes of Bitumen per container.

Heating of Bitumen using a specially designed, temperature controlled unit, with a typical melting rate of 3-4 tonnes per hour.

Boxes are reusable, in country.

Drums

New drums on pallets.
Reusable conical drums.
Reconditioned drums.

Flexitanks

25,000 litres of Emulsion inside a polyethylene bag, inside a conventional shipping container.

Discharge using a conventional bitumen pump to site storage.

IBCs

1000 litres of Emulsion inside a reusable container with integral pallet.



TECHNICAL SUPPORT

The specification and use of Extra Performance Binders requires experience and knowhow to achieve Extra Performance in the road.

For Extra Performance Bitumen binders, EP are able to offer assistance with asphalt mix design for significant projects, using project aggregates.

This gives an opportunity to optimise binder contents and to produce high quality asphalt.

EP are able to offer assistance with design for all types of surface dressing, including racked-in, double and triple surface treatments.

Laboratory trials enable accurate specification of aggregate and binder spread rates, together with adhesion tests for ensuring chip retention in the road.

EXPORT FINANCE

EP International has many years of experience in supplying international aid funded projects. We work closely with our clients to satisfy the documentary and technical requirements of these essential development schemes.



UK Export
Finance



European Union
Humanitarian Aid



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