

AGGREGATE INDUSTRIES

Asphalt

Airflex®



A range of airfield asphalt mixtures appropriate for use in runways and taxiways and designed to using the principles of the French airfield standard Béton Bitumineux pour Chaussées Aéronautique (BBA) on the continent. For runway use, the surface course mixture is normally not grooved however, the mixture has been independently assessed to show that it can receive grooving to provide a more economic alternative to traditional grooved marshall asphalt.

- Applicable for heavy duty airfield use; both taxiways and runways
- High level of rut and scuffing resistance
- Widely available
- Can be grooved for runway applications
- Available as a standard penetration grade binder or polymer modified for more heavy duty use.

Performance

Typical mechanical properties

Airflex (50 pen)

Airflex (pmb)

Reference: marshall asphalt (70/100 pen)

BBA continuous specification AC10 BBA-C (surface)

| | | | | |
|---|------|------|------|---|
| UK wheel tracking @ 60°C Rut depth (mm) | 2.3 | 1.8 | 10.0 | NA |
| UK wheel tracking @ 60°C Rut rate (mm/hr) | 0.9 | 0.7 | 4.0 | NA |
| UK stiffness @20°C, 2.5 Hz (MPa) | 5000 | 4700 | 1000 | NA |
| Richness Modulus | 3.7 | 3.7 | | >= 3.6 |
| Gyratory compaction (% air voids) | 13.9 | 15.3 | | >10 @ 10 gyrations 3-7 @ 60 gyrations |
| Resistance to deformation (% rutting @ 10,000 cycles) | 6.7 | 6.2 | | Class 1 </=15% Class 2 </=10% Class 3 </=7.5% |
| Slab % air void content | 6 | 5 | | 4-7% |
| Duriez (water sensitivity) @ 18 deg C | 0.83 | 0.87 | | >/=0.8 |

Applications

- Airfield taxiways
- Airfield aprons
- Runways.

Layer

Surface and binder course.



Sustainability and local sourcing

Energy use: Aggregate Industries is at the forefront of sustainability and has committed to reduce carbon emissions by 20% by 2016 based on a 2012 base line.

Recyclable: 100% of the product can be recycled thus reducing the amount of material that is sent to landfill.

Manufacturing location: Produced in the UK, under strict environmental and social legislation.

Responsible sourcing: Aggregate Industries is the first company in the world to achieve a BES 6001:2008 Responsible Sourcing Certificate from BRE Global. Products are assessed on:

- quality management
- environmental management
- health and safety management
- greenhouse gas emissions
- minimising raw material usage
- labour practice
- biodiversity
- community engagement.

Aggregates

Airflex is available using a range of standard aggregates in 14mm binder course & 10mm surface course nominal sizes.

Binder

Airflex standard grade uses a 50pen bitumen whilst Airflex-P denotes the use of a Aggregate Industries approved polymer modified bitumen.

Skid resistance

For light use runways an ungrooved Airflex surface is acceptable when produced with an appropriate aggregate with the required polished stone value. For heavy use runways or where there is a requirement for 'dry when wet' then Airflex can be grooved in the normal manner.

Manufacturing standard

All Aggregate Industries' products are manufactured in accordance with ISO 9001 and Highway Sector Scheme 14 with factory compliance to ISO 14001.

Policies

Aggregate Industries' policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website www.aggregate.com

Health and safety: COSHH data

Full COSHH data on asphalt products is available on request. Please call the technical helpline on 0845 600 0860.

Technical support

Detailed guidance and assistance with the preparation of specification and use of asphalt products is available through the sales office. A free technical service is also available.

For further information, please refer to our asphalt technical services on 0845 600 0860.