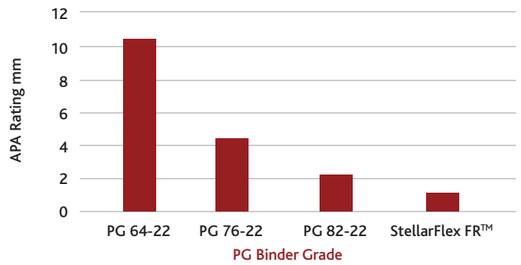
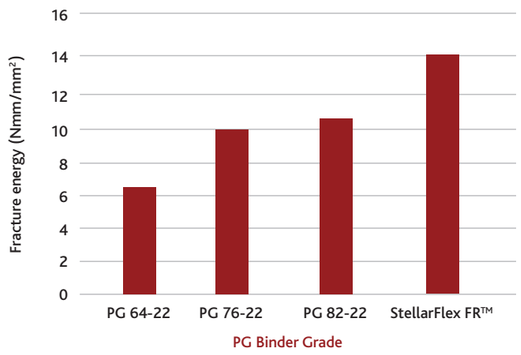
Permanent deformation



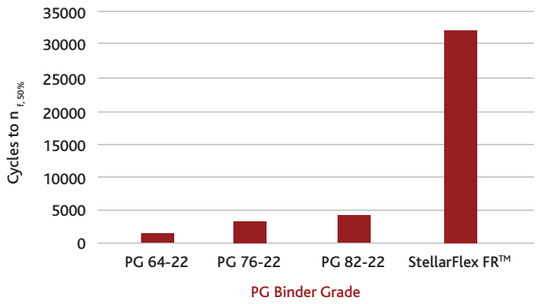
Permanent Deformation measured by an Asphalt Pavement Analyzer test machine. Test run for 8,000 cycles at 64°C with 100 psi hose pressure. Rutting measured in mm after 8,000 cycles.

Low temperature cracking



Fracture Energy, as measured by an Indirect Tensile Strength Test @ 0°C (High Fracture Energy indicates greater resistance to low temperature cracking).

Fatigue cracking



Fatigue Life measured by the Flexural Beam Fatigue Tester at a test frequency of 10 Hz, temperature of 15°C and at a tensile micro strain of 1,000. Failure determined by number of cycles required to reduce beam stiffness to 50% of initial stiffness.

Associated Asphalt®

130 Church Avenue SW
Roanoke, VA 24011

www.associatedasphalt.com

As one of the largest independent asphalt resellers in the United States, Associated Asphalt stores, blends, hauls and sells a diverse mix of performance grade asphalt products. With a 5.3 million barrel capacity, we also supply quality paving grade asphalts, emulsions, modified and specialty polymer-modified asphalts throughout the Eastern United States, helping many contractors pave their own road to success.

For more information about StellarFlex FR™ and other Associated Asphalt products, call 800-542-5780.

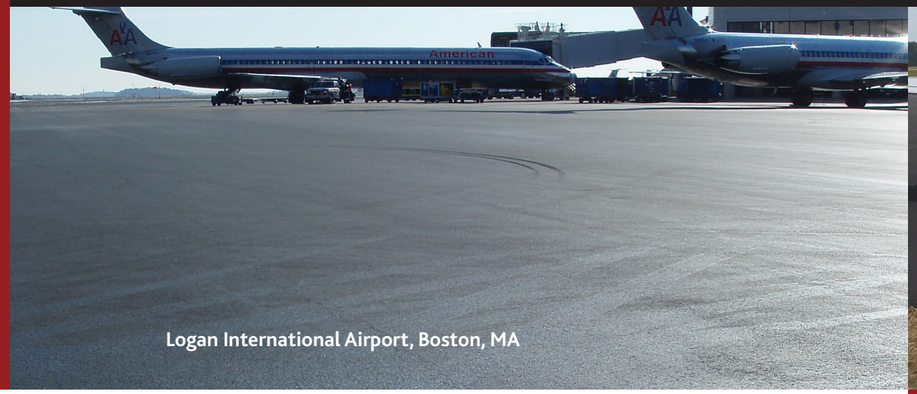
StellarFlex FR™

Fuel Resistant Asphalt

The first highly polymer-modified asphalt binder that meets the FAA P-601 Specification for Fuel-Resistant Hot Mix Asphalt Pavement

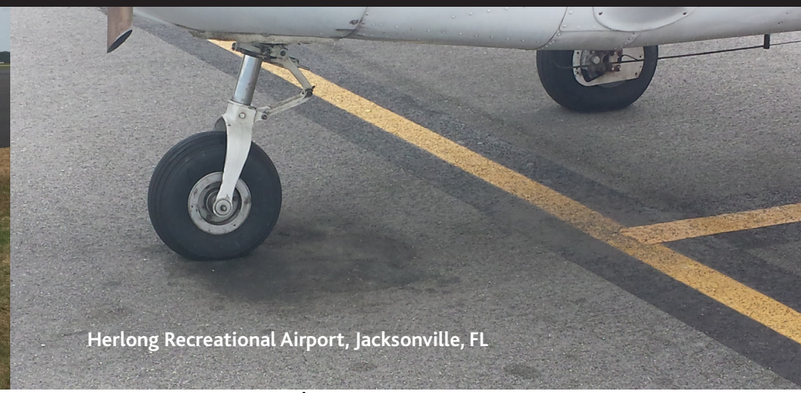
Associated Asphalt®

Airports using a P-601 mix containing **StellarFlex FR™** asphalt binder



Logan International Airport, Boston, MA

Georgetown County Airport, Georgetown, SC



Herlong Recreational Airport, Jacksonville, FL

StellarFlex FR™

Fuel Resistant Asphalt

Resisting fuel, cracks and ruts since 1996

The first FAA-specified fuel-resistant asphalt pavement

StellarFlex FR™ is a highly polymer-modified asphalt binder formulated for the extreme stresses that airport pavements must endure: exposure to jet fuel and the enormous weight of slow-moving aircraft.

Safe and worker-friendly, StellarFlex FR™ features a polymer modifier that allows asphalt to resist damage from jet fuel and hydraulic oil, as well as rutting and cracking. In the process, StellarFlex FR™ eliminates the need for coal tar sealers and extends pavement life substantially.

Backed by a proven, 20+year track record of success, StellarFlex FR™ is the first product to meet the FAA's "P-601, Fuel Resistant Hot Mix Asphalt Pavement" specification.

Cost-effective production, application and wear

Asphalt mixes using StellarFlex FR™ can be produced at any hot mix plant without the need to modify equipment or operating procedures, so production and application doesn't generate additional operating expenses.

StellarFlex FR™ need only be used in the surface layer of the pavement (minimum 1.5" thickness) to deliver years of superior protection against fuel and pressure-induced failure modes – without the recurring costs or health risks of coal tar sealers. Some StellarFlex FR™ airport pavement applications have been in place for more than 15 years and show no signs of rutting or cracking.

BENEFITS

- Meets FAA P-601 Specification for Fuel-Resistant Hot Mix Asphalt Pavement
- High resistance to:
  - Permanent deformation
  - Fuel damage
  - Fatigue cracking
  - Thermal cracking
- Excellent workability and flexibility
- Cost-effective production and application

PAVEMENT APPLICATIONS

- Airports
- Fuel storage tank areas
- Airport bus lanes
- Fueling stations
- Truck stops
- High-traffic heavy truck roadways

After 24 hours in jet fuel, the StellarFlex FR™ difference is clear

To meet the FAA's P-601, Fuel Resistant Hot Mix Asphalt Pavement specification, compacted asphalt mix samples must not lose more than 2.5% of their weight after being immersed in jet fuel for 24 hours. As the below photos show, P-401 with PG 64-22 lost 10% of its weight after the 24-hour soak, while P-601 with StellarFlex FR™ lost only 1%!

P-401 HOT MIX ASPHALT
LOST 10% OF ITS WEIGHT

P-601 FUEL RESISTANT
HOT MIX ASPHALT
WITH STELLARFLEX FR™
LOST LESS THAN 1.0%

Protecting airport pavements worldwide

In use internationally since 1996 and in the US since 2002, StellarFlex FR™ has been applied at some of the world's busiest international airports and several general aviation aprons, protecting those fields from jet fuel, hydraulic oil, de-icing fluids and extreme surface stresses.

LaGuardia International Airport,
New York City, NY
2002 – Taxiway reconstruction

Logan International Airport,
Boston, MA
2004 – Taxiway N and Runway 4L-22R resurfacing

Logan International Airport,
Boston, MA
2005-2007 – Terminal alleyways resurfacing

Douglas International Airport,
Charlotte, NC
2006 – Runway 18L-36R resurfacing