



DSR

Vacuum Viscometer

Ductility

Penetrometer

Thin Film Oven

Rolling Thin Film Oven

Direct Tension Tester

BBR

Elastic Recovery

MSCR

Force Ductility

Toughness & Tenacity

Pen Spec

Viscosity Spec

Solubility Spec

PG Spec

DSR

Penetrometer

Rolling Thin Film Oven

BBR

MSCR

Force Ductility

Viscosity Spec

PG Spec

DSR

BBR

MSCR

PG Spec

DSR

PG Spec

**DSR VS. PG SPECIFICATION**

PG Spec

**MSCR VS. FORCE DUCTILITY**

*The elegance of using a DSR as part of a "Plus" specification wins out easily over a ductility machine with a load cell.*

**AIR VOIDS/VMA VS. PG SPECIFICATION**

*Tough final pairing, but then again isn't it always that way in any good tournament? On one hand you have a significant advancement in the specification of asphalt binders based on performance properties. On the other, a mix design concept that accounts for two potential distresses (durability cracking and rutting) using simple tests and calculations. Proper VMA with proper air void content ensures that the asphalt mix will have sufficient binder for durability without having too much to contribute to rutting/flushing. In the end it's all about the mix. Air Voids/VMA wins in a squeaker.*