



MOUNTAIN STATES ASPHALT INC.

205 s Emerald Rd
Tooele, UT 84074

SUPERPAVE™ Binder Grade:		PG 64-34 UT			
Sample ID:		2024 Mix Design			
Sample Condition (ie Good/Open):		Good	Date Tested:	1/6/2024	By: JH
Test		Temp	Method	Specification	Result
ORIGINAL BINDER					
AASHTO M 320 Requirements					
Viscosity, Pa*s		135°C	T 316	3.0 max	1.275
Dynamic Shear	G*, 10 rad./sec., kPa	64°C	T 315	1.3 min	1.75
	Phase Angle, δ (°)			71 max	68.2°
RTFOT RESIDUE					
AASHTO M 320 Requirements					
Mass Change, % (Mass Loss is reported as Negative)			T 240	1.0 max	-0.315%
Dynamic Shear		G*/sinδ, 10 rad./sec., kPa	64°C	T 315	2.2 min 3.88
Additional Requirements					
Elastic Recovery, %		25°C	T 301	85 min	91%
PRESSURE AGING RESIDUE (100°C, 300 psi, 20 hr.)					
AASHTO M 320 Requirements					
Dynamic Shear		G*(sinδ), 10 rad./sec., kPa	19°C	T 315	5,000 max 1713
Creep Stiffness	Stiffness, MPa (60 sec.)		-24°C	T 313	150-300 237
	m Value				0.300 min 0.338
Creep Stiffness -6°C	Stiffness, MPa (60 sec.)		-30°C	T 313	Report 508
	m Value				Report 0.276
Delta Tc			-	-1 min	1.82

*Result from subcontractor

The Mixing Temperature Range corresponding to a viscosity range of 0.15 to 0.19 Pa.s, is 309-316°F.

The Compaction Temperature Range corresponding to a viscosity range of 0.25 to 0.31 Pa.s, is 291-297°F.

These are laboratory mixing and compaction estimates, adjustments to the temperatures are likely needed for laboratory testing and verification, as well as in the field.

Notes: This sample complied with the requirements of UDOT Section 02745 - Asphalt Materials, PG 64-34

Tested By:

Jameson Hulse, Binder Tech

Reviewed By:

Gene Chrisenbery, Vice President

Typical Temperature-Viscosity Graph

Material

PG 64-34

Specific Gravity, 15°C

1.030

Recommended Mix and Compaction Temperature

PG 64-34	Mixing Hi Limit	316 °F
PG 64-34	Mixing Low Limit	309 °F
PG 64-34	Comp High Limit	297 °F
PG 64-34	Comp Low Limit	291 °F

Correlation

0.9877

