



MOUNTAIN STATES ASPHALT INC.

205 s Emerald Rd
Tooele, UT 84074

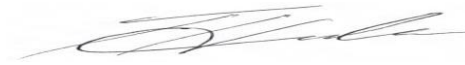
SUPERPAVE™ Binder Grade:	PG 64-28NV	Date Recieved:	11/5/2023	By:	JH
Sample ID:	2024 MD				
Sample Condition (ie Good/Open):	Good	Date Tested:	11/5/2023	By:	JH

Test	Temp	Method	Specification	Result	
ORIGINAL BINDER					
Viscosity, Pa*s	135°C	T 316	3.0 max	0.625	
Dynamic Shear	G*/sinδ, 10 rad./sec., kPa	64°C	T 315	1.00 min	1.19
Additional Requirements					
Sieve Particulate Retained	-	NDOT T730	0	0	
Ductility (5 cm/min.), cm	4°C	NDOT T746	50 min	65+	
Toughness & Tenacity	Toughness	25°C	NDOT T745	110 min	115.6
	Tenacity	25°C		75 min	107.1
RTFOT RESIDUE					
Mass Change, % (Mass Loss is reported as Negative)		NDOT T728	1.0 max	-0.348%	
Dynamic Shear	G*/sinδ, 10 rad./sec., kPa	64°C	T 315	2.2 min	2.55
Additional Requirements					
Ductility (5 cm/min.), cm	4°C	NDOT T 746	25 min	32	
PRESSURE AGING RESIDUE (100°C, 300 psi, 20 hr.)					
Dynamic Shear	G*(sinδ), 10 rad./sec., kPa	22°C	T 315	5,000 max	1463
Creep Stiffness	Stiffness, MPa (60 sec.)	-18°C	T 313	300 max	116
	m Value			0.300 min	0.381

The Mixing Temperature Range corresponding to a viscosity range of 0.15 to 0.19 Pa.s, is 294-302°F.
 The Compaction Temperature Range corresponding to a viscosity range of 0.25 to 0.31 Pa.s, is 275-282°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 requirments of NDOT Section 703 - Bituminous Materials, PG 64-28

Tested By:



 Jameson Hulse, Binder Tech

Reviewed By:



 Gene Chrisenbery, Vice President

Typical Temperature-Viscosity Graph

Material	PG 64-28NV
Specific Gravity, 15°C	1.030

Recommended Mix and Compaction Temperature		
PG 64-28NV	Mixing Hi Limit	302 °F
PG 64-28NV	Mixing Low Limit	294 °F
PG 64-28NV	Comp High Limit	282 °F
PG 64-28NV	Comp Low Limit	275 °F

Correlation 1.0000

