

For **Lunday Thagard
Refining**

Date: February 27, 2006
 Tank: 10027
 LTR ID: 022306-098
 Sample Date: February 23, 2006
 APART Sample ID: 06-0223LTR-10027

Tested @ APART, Inc.
 5207 Minter Field Avenue
 Shafter, CA 93263
 (661) 393-2748

PRODUCT: PG 64-10

Test	Result	Test Method	Specification
Rotational Viscosity, 135°C, Pa·s	0.312	AASHTO T316	3.0 Maximum
Flash, COC, °C	290	AASHTO T48	230 Minimum
Solubility in TCE, w%	99.68	AASHTO T44	99.0 Minimum
Dynamic Shear Rheometer, 64°C Complex Viscosity, η^* , Pa·s	117.5	AASHTO T315	1.00 Minimum
G*, kPa	1.18		
Phase Angle, °	88.8		
G*Sin- δ , kPa	1.18		
RTFO-Aged			
Mass Change, w%	-0.05	AASHTO T240	1.00 Maximum
Dynamic Shear Rheometer, 64°C G*, kPa	2.51	AASHTO T315	2.20 Minimum
Phase Angle, °	87.0		
G*Sin- δ , kPa	2.52		
Ductility, 25°C, cm	150+	AASHTO T51	75 Minimum
PAV-Aged, 2.1 MPa, 20 Hrs., 100°C		AASHTO R28	
Dynamic Shear Rheometer, 31°C G*, kPa	2715	AASHTO T315	5000 Maximum
Phase Angle, °	56.2		
G*Sin- δ , kPa	2257		
Bending Beam Rheometer, 0°C Stiffness, MPa	44.9	AASHTO T313	300 Maximum
m-value	0.463		

This asphalt is in compliance to appropriate specifications.

Reported by: Bob Staugaard

Test data reported herein has been secured by reliable testing procedures. As we have no knowledge of, or control over the conditions that may affect the use of material from which samples were taken, we assume no responsibility in furnishing this data other than to warrant that they represent reliable measurements of the properties of the sample (s) received and tested. No warranties, expressed or implied, including warranties of merchantability or fitness for a particular use, are made with respect to the products described herein. Nothing contained herein shall constitute a permission or recommendation to practice any invention covered by a patent without license from the owner of the patent.