

## Micro-Armor Test Report - 001017

### Wheel Bearing Grease Comparative Testing

Test Location – Driving 101 / Andretti Racing School - Las Vegas Speedway

Test Vehicle(s) – Indy Cars

Purpose of Test – Compare grease performance as observed from temperature readings on the drive flange, half shaft joint, and wheel bearings.

Products Tested - Conoco Phillips 76 Megaplex (the grease being used in the cars at the time of testing)  
 - BTS Micro-Armor 6000 Grease (at the time of testing product was marketed as CLM HTS-550)

Test Procedure – Before the tests, driving school cars number 20, 15, and 18 had wheel bearings and half shafts degreased, serviced, and repacked using the Micro-Armor 6000 Grease. Cars 17, 3, and 9 were serviced using the 76 Megaplex grease that the track had been using. The results below are based on track testing and were recorded over a four day period.

**Data:**

<b>76 Megaplex (deg F)</b>	Day 1	Day 2	Day 3	Day 4	<b>Micro-Armor 6000 (deg F)</b>	Day 1	Day 2	Day 3	Day 4
<b>Car #17</b>					<b>Car #20</b>				
RR Drive Flange	240	244	241	245	RR Drive Flange	211	228	220	226
RR Half Shaft Joint	258	260	255	262	RR Half Shaft Joint	234	240	238	240
RR Inner Wheel Bearing	122	125	127	130	RR Inner Wheel Bearing	105	112	110	119
<b>Car #3</b>					<b>Car #15</b>				
RR Drive Flange	252	249	254	260	RR Drive Flange	219	234	223	225
RR Half Shaft Joint	261	264	263	267	RR Half Shaft Joint	240	241	245	239
RR Inner Wheel Bearing	130	125	132	140	RR Inner Wheel Bearing	102	115	114	113
<b>Car #9</b>					<b>Car #18</b>				
RR Drive Flange	258	258	255	262	RR Drive Flange	208	224	217	220
RR Half Shaft Joint	261	264	260	269	RR Half Shaft Joint	230	232	229	225
RR Inner Wheel Bearing	133	136	124	137	RR Inner Wheel Bearing	105	112	110	119

**Extrapolated Results:**

<b>76 Megaplex (deg F)</b>	<b>Ave.</b>				<b>Micro-Armor 6000 (deg F)</b>	<b>Ave.</b>			
RR Drive Flange	251.50				RR Drive Flange	221.25			
RR Half Shaft Joint	262.00				RR Half Shaft Joint	236.08			
RR Inner Wheel Bearing	130.08				RR Inner Wheel Bearing	111.33			

### Average Temperature Reduction By Using *Micro-Armor 6000 Grease*

<b>RR Drive Flange</b>	<b>30.25</b>	<b>12.02 % Reduction In Temperature</b>
<b>RR Half Shaft Joint</b>	<b>25.92</b>	<b>9.83 % Reduction In Temperature</b>
<b>RR Inner Wheel Bearing</b>	<b>18.75</b>	<b>14.41 % Reduction In Temperature</b>

