



Basic Concept

- Follow-on project to AMD 305
- 3.5 Year Project
- \$1,037K Total Budget (\$584k Cash, \$453k In-Kind)
- 4 Phases
- B206 properties are desirable for suspension applications
 - B206 (Al,Cu alloy) has similar mechanical properties as ferritic ductile iron.
 - B206 has superior mechanical properties compared to common aluminum suspension alloys such as forged 6061 and permanent mold A356.2.
 - Suspension alloys are typically designed to the yield stress and require elongations greater than 7% for impact and crash properties.

Mechanical Properties for Select Suspension Materials

Material	Process	Temper	Tensile		Yield		Elongation	Hardness
			MPa	ksi	MPa	ksi		
A356	Sand	T6	235	34	165	24	3.5	70 - 100
	PM	T6	255	37	180	26	7	80
A356.2	PM	T6	276	40	207	30	7	80 - 100
6061	Forging	T6	241	35	214	31	12	73
6061	Forging	T6	310 min.		270 min.		10% min.	
65-45-12	Sand		450	65	310	45	12	156-217
60-40-18	Sand		415	60	275	40	18	143-187
B206	PM	T4	430 - 450	62 - 65	250 - 260	36 - 38	18 - 22	
	PM	T7	445 - 455	64 - 66	370 - 390	54 - 57	9	