

forged magnesium rims



technical data



dimensions (inch)	6 x 15	7 x 16	7.5 x 17	8.5 x 18	8 x 19
weight (kg)	5.5	6.5	7.2	8.3	9.2
max. payload (kg)	600	690	750	750	800
rim offset (mm)	30-60 (30, 35, 38, 40, 42, 45, 54, 60)				
PCD (mm)	98 ~ 139.7mm				
material	AZ80A				
production process	forging → machining → surface finish				

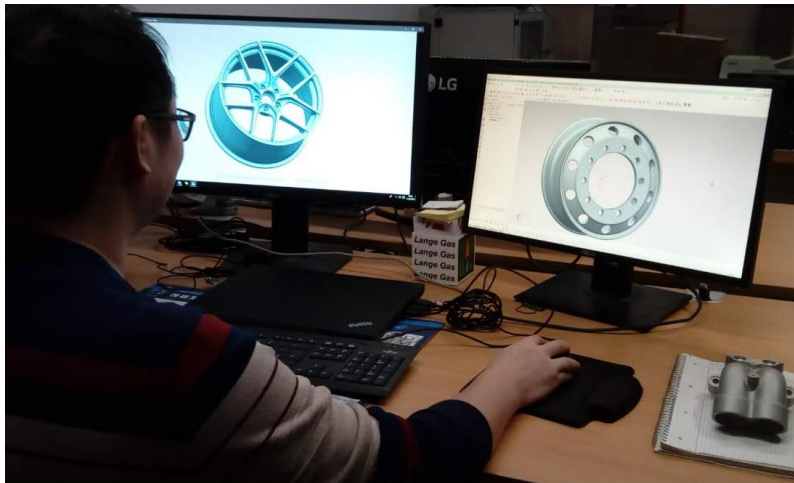
dimensions



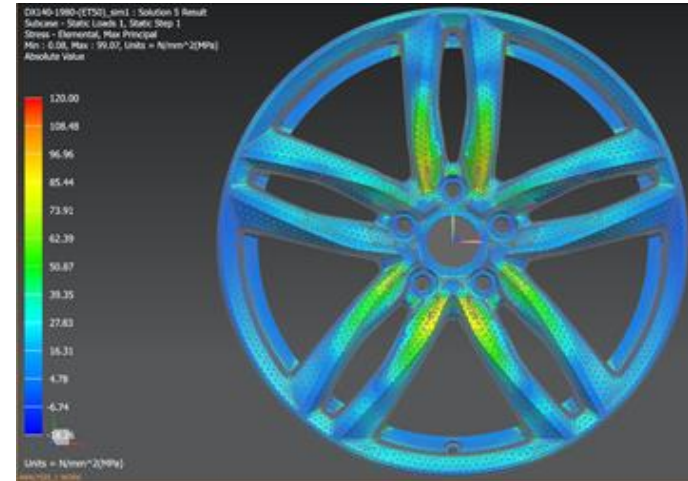
13*5J 13*5.5J 13*6J
14*5J 14*5.5J 14*6J 14*6.5J
15*5J 15*5.5J 15*6J 15*6.5J 15*7J 15*7.5J
16*6.5J 16*7J 16*7.5J 16*8J
17*7.5J 17*8J 17*8.5J
17*9J 17*9.5J 17*10J (SUV rims)
18*7J 18*7.5J 18*8J 18*8.5J 18*9J 18*9.5J
19*8J 19*8.5J 19*9J 19*9.5J
22.5*8.25J 22.5*9J (truck und bus rims)
20*7.5J 20*8J 20*8.5J 20*9J 20*9.5 20*10J 20*10.5 20*11 20*11.5
21*8 21*8.5J 21*9J 21*9.5J 21*10J 21*10.5J 21*11J 21*11.5
22*8 22*8.5J 22*9J 22*9.5J 22*10J 22*10.5J 22*11J 22*11.5 22*12

available in forged aluminium and magnesium

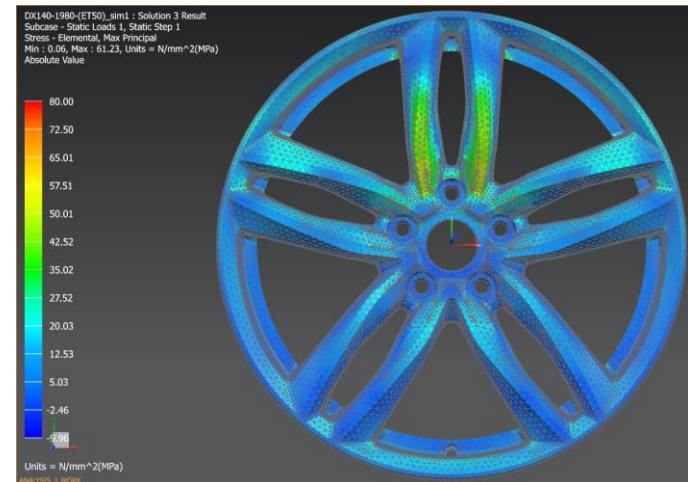
development



3D-construction



FEM simulation (cornering)



FEM simulation (impact test)

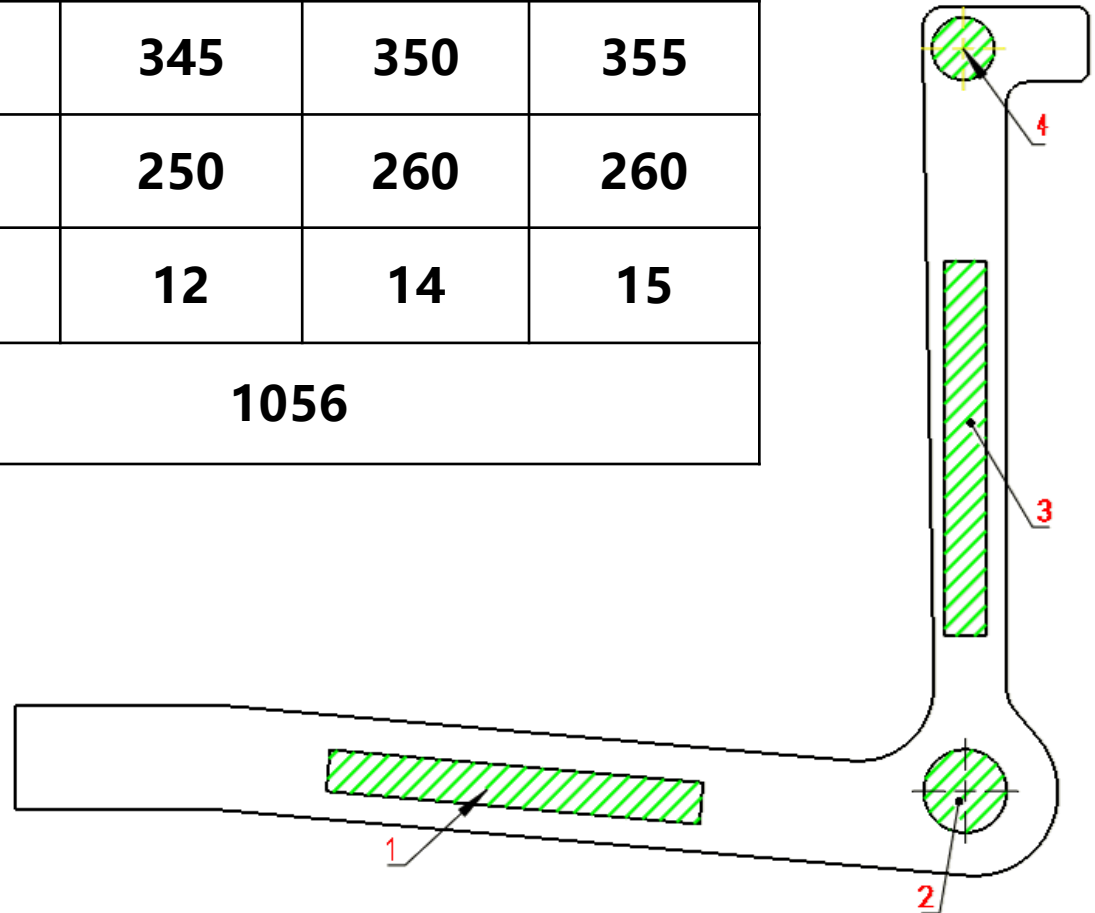
material properties



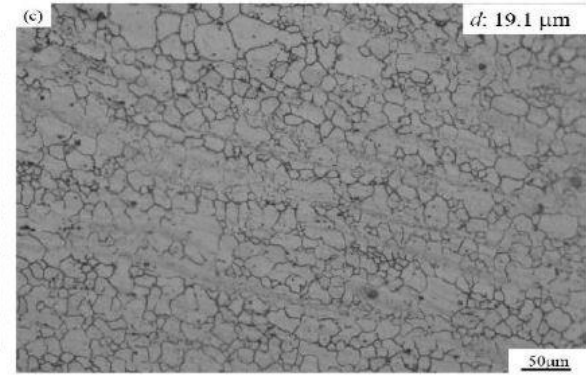
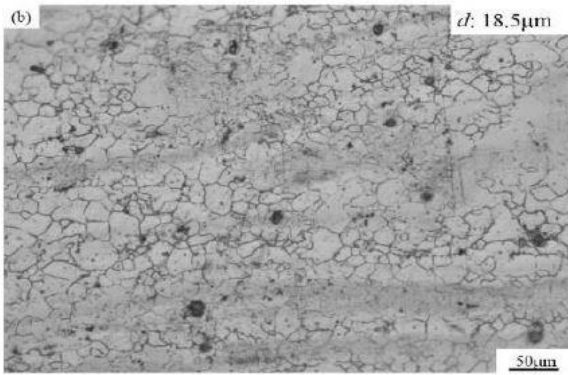
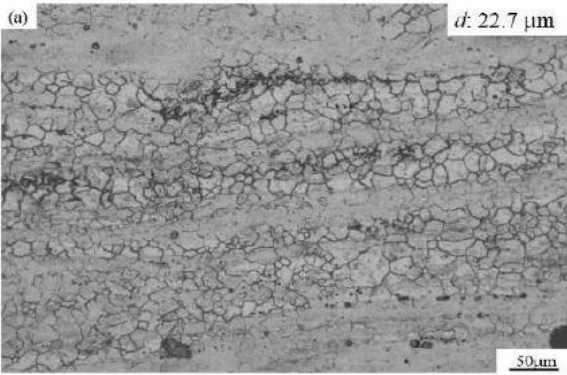
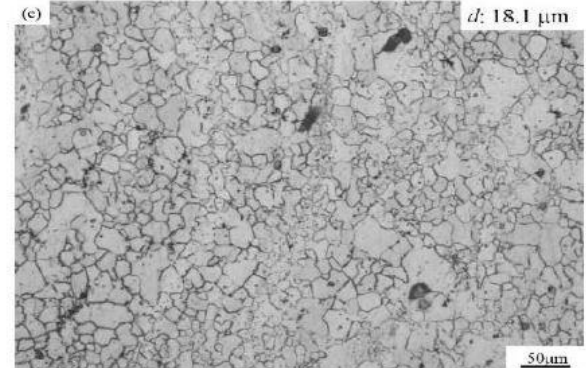
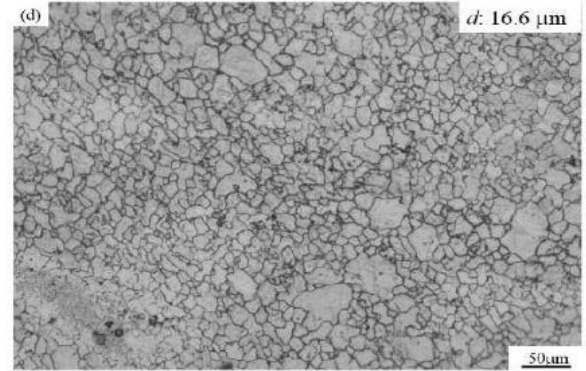
17 inch		casted Al	forged Mg
material	material	A356.2(Al-Mg-Si)	AZ80A(Mg-Al)
	Rm	235MPa	355MPa
	Rp0.2	170MPa	260MPa
	Ag	6%	15%
tests	max. payload	600kg	630kg
	endurance test (torque)	200.000 x 2425 Nm (3 tests)	300.000 x 3870 Nm (3 tests)
	endurance test (lateral force)	2.000.000 x 13245 N (3 tests)	2.000.000 x 15240 N (3 tests)
	impact test	GB/T 15704	
weight		11.8kg	7kg
production process		low-pressure casting	forging
development time		5 months	5 months

material sample

position	1	2	3	4
Rm (MPa)	345	345	350	355
Rp0.2 (MPa)	250	250	260	260
Ag (%)	12	12	14	15
CASS test (h)	1056			



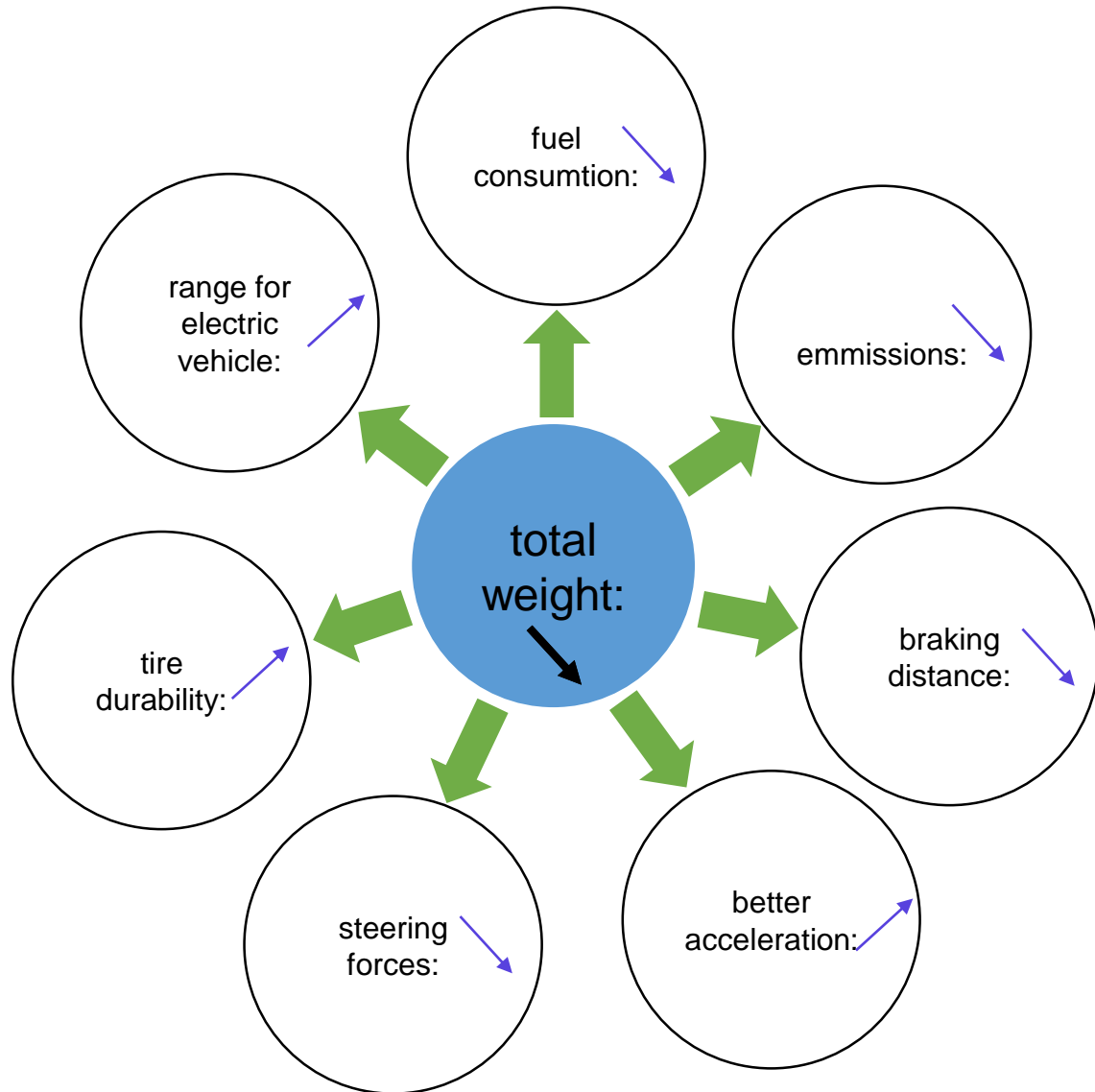
grinding pattern



effect for the vehicle



example of 17" rim	
weight per rim:	-4.5kg
nonsuspended mass:	-18kg -35%



manufacturing process



**raw material
(casted bolt)**



**forged green
body**



machining



surface finish

manufacturing process



1 x 15.000 tonne press

;

4 x 8.000 tonne press

homogeni-
sation

cutting

heating

forging

machining

painting

manufacturing process



homogeni-
sation

cutting

heating

forging

machining

painting

manufacturing process



homogeni-
sation

cutting

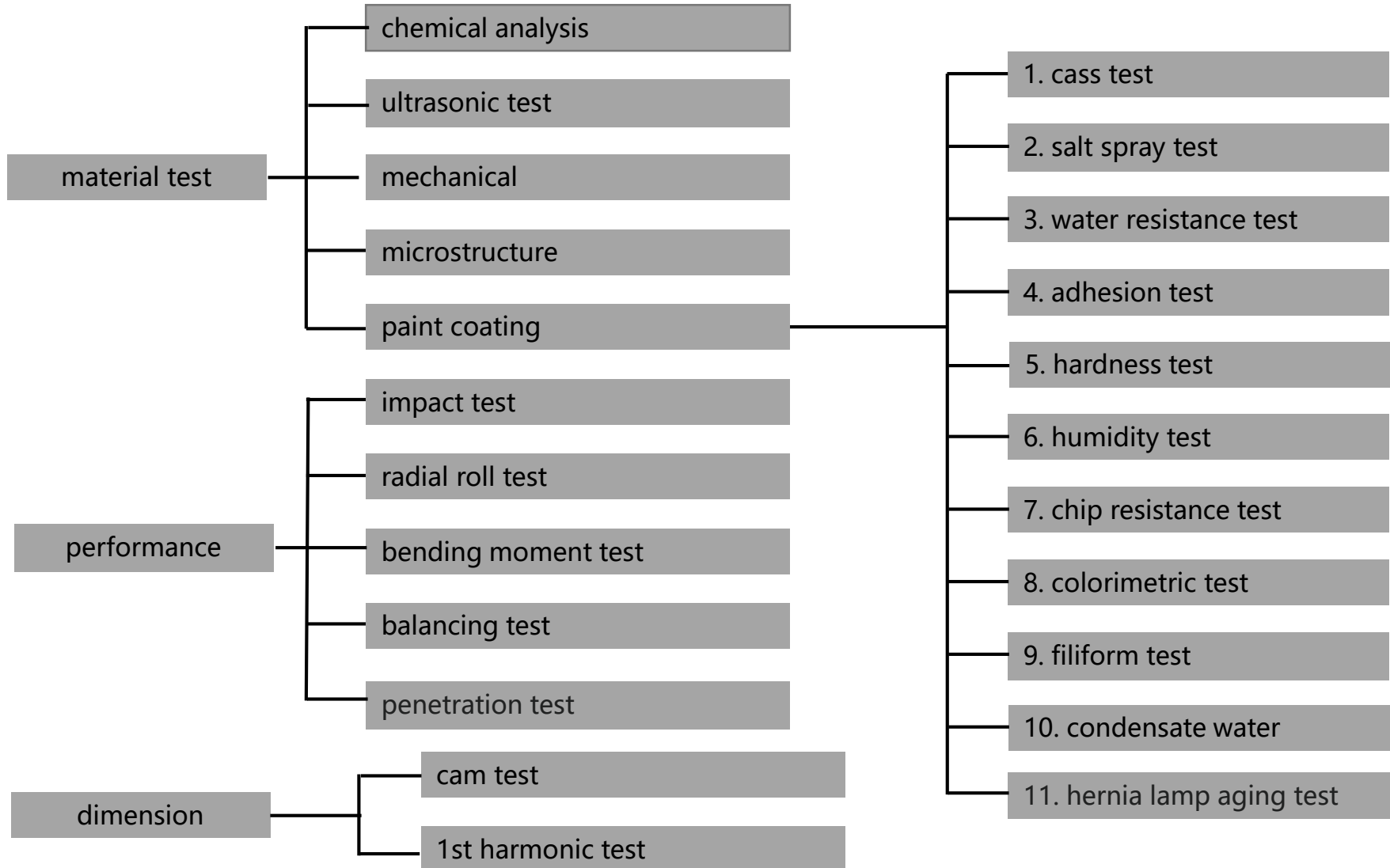
heating

forging

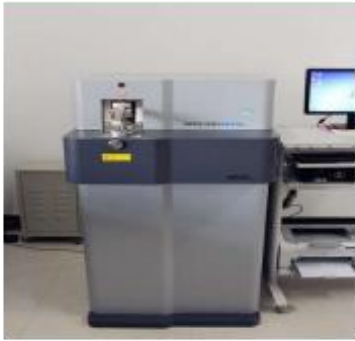
machining

painting

quality control



quality control



spectrograph



condensate water testing machine



mechanical properties testing machine



metallographic scope



cass tester



cold and hot alternate testing machine



harmonic wave measuring instrument



dynamic balance instrument

quality control



salt spraying test



3D - measuring



beding tester



rolling tester



stone chip resistance
gravelometer



30° impact testing
machine



90° impact testing
machine



13° impact testing
machine

contact details



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