Penta

The next generation in rim development.

OCP KUNSTSTOFFTECHNIK GmbH

SUTERacing

EVOLUTIONARY ENGINEERING

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Overview

Penta represents the next generation in motorcycle rim development. Penta rims are built entirely in carbon fiber composites resulting in superior weight and mechanical properties. Penta emerges from a close collaboration of leading scientific and industrial partners. Penta is only made possible through new innovative technologies in composite engineering and specially developed manufacturing techniques.

Features

- *Weight:* The Penta rims are significantly lighter than available rims used in the MotoGP.
- *Mechanical properties:* The rims are engineered to match typical stiffness values of existing magnesium rims. Additionally, the engineering tools and materials used in the development of Penta allow adjustments of the stiffness values to match specific customer design requests.
- *Durability and strength:* The wheels were tested for durability with loads 30% higher than usually applied on MotoGP wheels over more then 1 Million cycles. After profound investigation no signs of any wear on the tested structures where found.
- *Crash behavior:* Various destructive tests have been performed. No test showed a collapsing of the wheels. All tested rims showed a continous destruction behavior limited to the impact zone very similar to metal rims. Furthermore Penta has passed all tests required for street-legal use.
- *Tire mounting:* The rims proved to be very robust. Compared to common magnesium rims, no special attention is required while tire mounting.

Technical Data

The following data are valid for the standard configuration MotoGP wheels. Other dimensions, mechanical properties as well as modifications in the interface may lead to slightly different properties. All weights are without bearings and breaking gear.

Front rim	Dimension:	16.5" x 3.75"
	Weight:	1650g
Rear rim	Dimension:	16.5" x 6.25"
	Weight:	2250g

Partners

- EVEN - Evolutionary Engineering AG
  http://even-ag.ch
- OCP-OmniCarbonProducts GmbH
  http://www.ocp.ch
- SRT - Suter Racing Technology AG
  http://www.suterracing.ch
- ETH - Swiss Federal Institute of Technology
  http://www.ethz.ch

EVOLUTIONARY ENGINEERING

EVEN - Evolutionary Engineering AG
Leonhardstrasse 25
CH - 8092 Zürich
SWITZERLAND

tel: +41 (0)44 633 35 32
fax: +41 (0)44 632 17 02
email: info@even-ag.ch
web: http://even-ag.ch