

#### APPLICATION OVERVIEW:

This mountain bike won the Gold, Silver and Bronze medals at the 2004 Olympics. iglide<sup>®</sup> G300 plastic bushings are used in the derailleur.

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# **CASE STUDY**

### OLYMPIC-MEDAL-WINNING MOUNTAIN BIKE

#### Derailleur for high-tech mountain bikes uses plastic bushings

The derailleur of a worldclass mountain bike guides and positions the bicycle chain accurately on the different gears. It uses iglide<sup>®</sup> G300 plastic bushings from igus<sup>®</sup> for this mechanism.

## Cycling through water, mud, sand, and oil

The derailleur is subject to several harsh environmental agents, such as water, mud, sand and oil. Additional demanding factors include the mechanical



include the mechanical stressing involved during jumps, for instance, and cleaning the bike afterwards with a steam blaster. Two iglide<sup>®</sup> G300 plastic bushings are seated in each of the four points of articulation on the derailleur. These enable a long service life fulfilling the demands of professional mountain bikers battling for medals.



The potential weight saving involved with plastic bearings is also an important factor for hightech mountain bikes. Aluminum or brass bushings feature high friction and wear and low accuracy, whereas iglide<sup>®</sup> G300 bearings operate extremely precisely and are almost indestructible. The long service life offered by iglide<sup>®</sup> G300 is also highly favorable and can be calculated online using our Expert System.

Expert System

#### More product information

iglide® overview

iglide® G300

#### More interesting application examples from different industries

Plastic bearings - applications overview