

Nüral[®]

FITTED WITH  GOETZE[®] RINGS

ECOTOUGH[®]

A NEW TECHNOLOGY COMES TO LIGHT.



ECOTOUGH[®] NEW GENERATION COATING

Discover tomorrow today. The new Nüral[®] EcoTough[®] NG piston skirt coating technology further reduces engine friction, wear and noise while handling the increasingly challenging loads and temperatures of FIAT's new Firefly engine.



ENGINE EXPERTISE
BY  **FEDERAL-MOGUL**
MOTORPARTS



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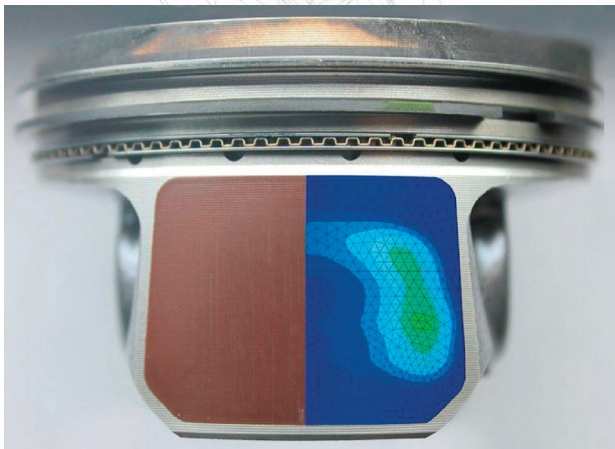
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STEP INTO THE FUTURE

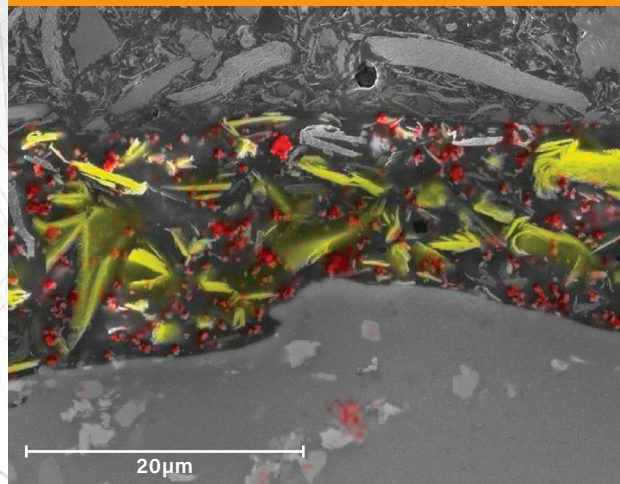
The latest EcoTough[®] NG piston coatings have been specially designed to meet the extreme load conditions of internal combustion engines. Thanks to a metal oxide-reinforced construction with additional embedded solid lubricant particles, they **reduce skirt wear by up to 40%*** when compared to market standards with a surface application of just 15 microns. This also **reduces piston frictional losses by up to 15%***.



Direct comparison of simulated contact load (right) and EcoTough-New Generation piston skirt coating with no visible wear (left) after testing in a 1.6-litre petrol engine

This means EcoTough[®] NG significantly **improves fatigue strength** and **increases fuel efficiency** for an environmentally friendly engine that's **more durable and efficient** than ever before. Application of these piston skirt coatings using fully automated, large-scale production processes means the excellent wear and friction properties can be achieved within economical cost targets.

Micro-section of Federal-Mogul Powertrain's EcoTough-New Generation piston skirt coating for petrol engines, showing individual component materials like reinforcing fibres



PARTNUMBER NÜRAL ECOTOUGH[®]: 87-450900-00

OE REFERENCE: 46336793

VEHICLE MANUFACTURER: FIAT

ENGINES: GSE-T3 - FIAT / GSE-T4 - FIAT

*Performance always compared to market standards. Press release by Federal-Mogul Powertrain - New Federal-Mogul Powertrain Piston Skirt Coatings Increase Durability for the Life of Pistons; Nuremberg, Germany, March 30, 2016.

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