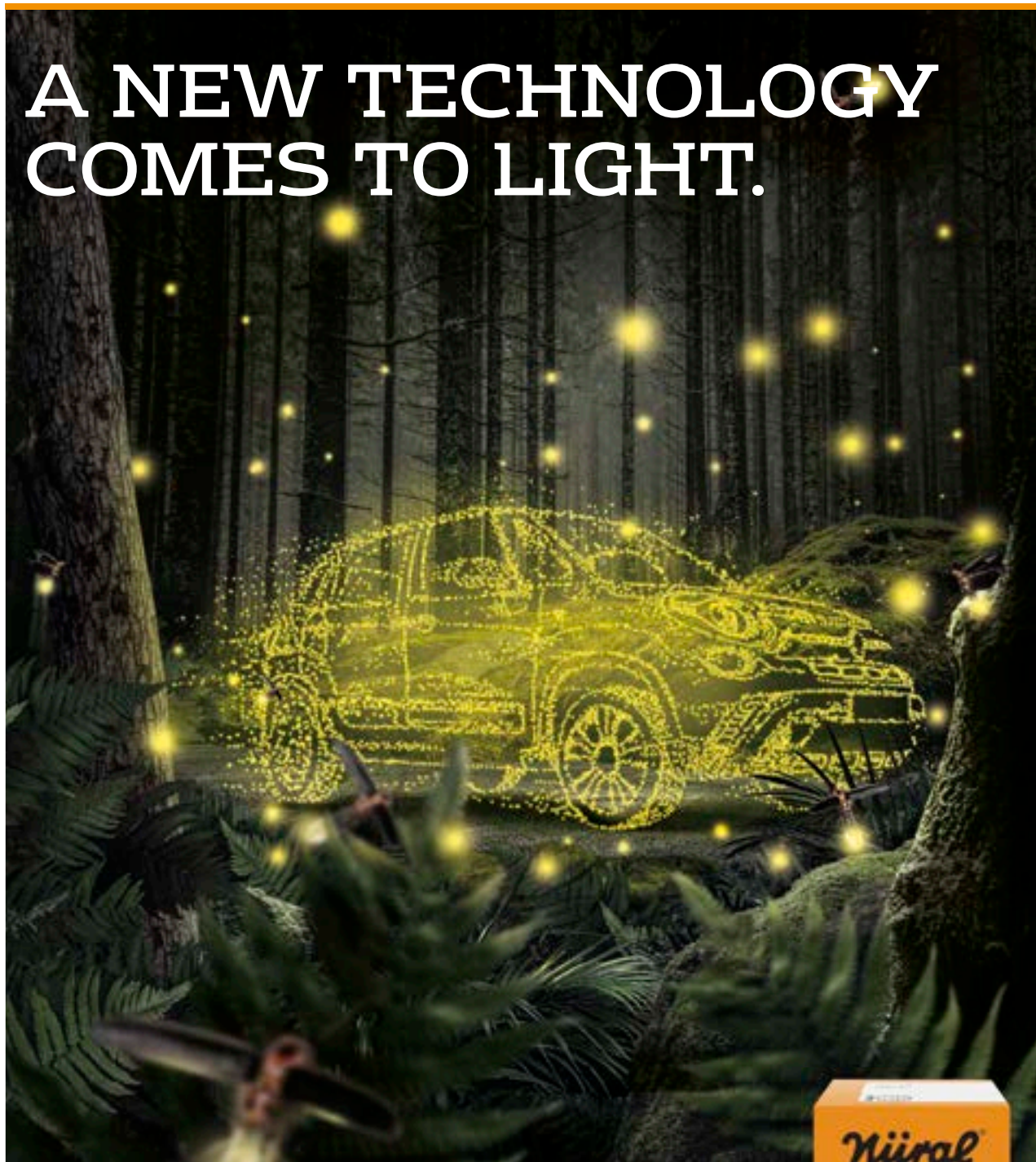


# Nüral®

FITTED WITH  GOETZE® RINGS

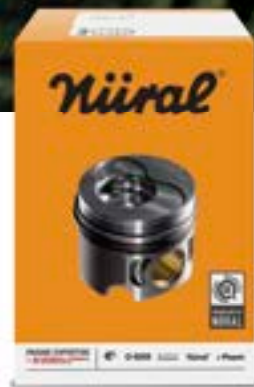
## ECOTOUGH®

# 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.

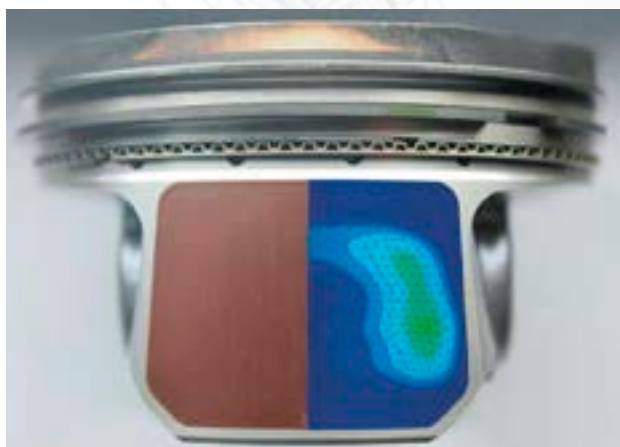


### ENGINE EXPERTISE



# STEP INTO THE FUTURE

The latest EcoTough<sup>®</sup> 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%\***.

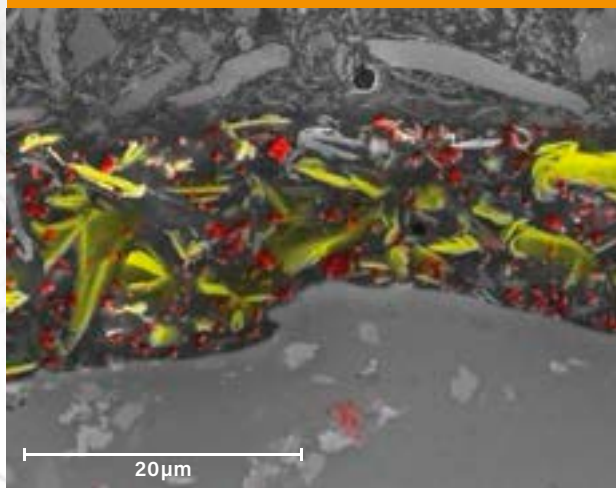


Direct comparison of simulated contact load (right) and EcoTough-New Generation piston skirt coating with no visible wear (left) after testing in a 1.6-litre petrol engine

This means EcoTough<sup>®</sup> 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<sup>®</sup>: 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.