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Second edition
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Diesel fuel and petrol filters for internal combustion engines — Filtration efficiency using particle counting and contaminant retention capacity

Filtres à carburant, essence ou diesel, pour moteurs à combustion interne — Efficacité de filtration par comptage des particules et capacité de rétention



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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 34, *Propulsion, powertrain and powertrain fluids*.

This second edition cancels and replaces the first edition (ISO 19438:2003), which has been technically revised.

The main changes are as follows:

- revised validation procedure;
- added requirement to measure final test system conductivity;
- revised test report to include initial and final test system conductivity;
- Replaced [Annex D](#) "Summary of the International interlaboratory trial (round robin) to validate ISO 19438 protocol" with "Effect of dust cake filtration on filter capacity".

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document establishes a standard test procedure for measuring the filtration efficiency, retention capacities and resistance to flow of fuel filters. This test is intended to differentiate filters according to their functional performance but is not intended to represent performance under actual field operating conditions. Test conditions are steady-state and the dynamic characteristics of the fuel systems are not represented. Other test protocols are in development to evaluate performance under cyclic flow and vibration.