TECHNICAL DATA SHEET
Fuel Catalyst
(Non-contact fuel structuring through resonance technology)

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1. Products & Features

Fuel catalysts utilize specific resonance fields for the molecular optimization of hydrocarbon chains. The goal is to increase combustion efficiency without chemically altering the medium.

Features	Spezifikation
Technology	Non-contact resonance effect (structuring)
Mode of action	Reduction of surface tension / cluster breakup
Supported media	Diesel, gasoline, LPG, LNG, natural gas, kerosene, biofuel
Area of application	Cars, trucks, marine, aviation, industrial plants
Operating temperature range	-40 °C to +100 °C (installation locatoin)
Durability / Lifespan	10 years without mechanical impact

Produkt & Application overview

Fuel Catalyst			Fuel Type						Field of effect				Placement						
													Tank			Batterie-Kabel		USB	...
			Benzin / Gasoline	Diesel	Gas	Wasserstoff / Hydrogen	Kerosin / Kerosene	...	Fuel	Oil	Mechanic	...	Kunststoff / Plastic	Metall / Iron	Aluminium	Minus Kabel	Plus Kabel	USB	...
2024	R7		X						X	-	-		X	X	-	X			
2025	Sjm-S D		-	X	-	-	-		X	-	-		-	-	-	-	X	-	
	Sjm-S		X	-	-	-	-		X	-	-		-	-	-	-	X	-	
	NE-S1		X	X	(x)	(x)	(x)		X	-	-		X	X	X	X	-	-	
....	USB-Stick		X	X	(x)	(x)	(x)		X	-	-		-	-	-	-	-	X	

Legende / Explication:	-	not applicable
	x	Probably applicable
	(x)	probably applicable, not tested
	X	Application confirmed & tested

2. Model variants & technical data

Product family: Passive Fuel Catalyst (R7 with NE-S1, Sjm-sD, Sjm-S, etc.)

Ideal for direct mounting on mobile units.

- **Energy supply:**
  Self-sufficient (no external power source required)
- **Installation location:**
  Directly at the fuel tank or at the battery's negative terminal.
  See documents in the download area and the video tutorial for further details.
- **Material adaptation:**
  Specific versions for plastic/steel and aluminum (aluminum reflection protection)
- **Maintenance:**
  100% maintenance-free

Product family: Active Fuel Catalyst (e.g. R3 / R5)

For stationary large-scale plants or extensive applications.

- **Energy supply**:
  USB port or batteries
- **Radius of influence**:
  Up to 30 meters
- **Application**:
  Pretreatment in tank systems or complex piping systems

3. Performance parameters & optimal use

Expected results

- **Fuel savings**:
  5% – 15% (load-dependent)
- **Emission reduction**:
  Significant reduction in soot particles, NOx and CO
- **Engine-Impact**:
  Reduced thermal stress, protection of DPF and EGR valves

Operating instructions for maximum efficiency

- **Structuring time**:
  Initial effects are noticeable after approximately 12 hours; complete system stabilization in the vehicle occurs within 7 days.
- **Refueling recommendation**:
  Refueling at approximately 25% remaining quantity (acceleration of the process through the "germination" effect of structured molecules)
- **Flow limitation**:
  At extremely high speeds (e.g., gas turbines), the contact time for full structuring must be checked separately.
- **Reusability**:
  Fuel catalysts can be transferred to another vehicle.
  Please remove carefully to avoid damage.

4. Compliance & Safety

- **● Standard stability:**
  After treatment, the fuel still complies with the standards DIN EN 590 (diesel) and DIN EN 228 (petrol).

- **Fire protection / Chemical resistance:**
  Fuel catalysts are resistant to fuel, oils and common cleaning agents.
- **Disposal instructions:**
  Disposal must be carried out professionally as electrical waste (WEEE) via the appropriate collection points or specialized companies.
- **Legal:**
  No entry in vehicle documents (TÜV/MFK) required..
- **Producer Warranty:**
  No interference with the fuel system or engine management; manufacturer warranties remain unaffected.

5. Functional integrity and external influencing parameters

To ensure the long-term effectiveness of the Fuel Catalyst resonance fields, the following conditions must be observed:

- **Physical integrity:**
  The effectiveness is dependent on the structural properties of the fuel catalyst plate. Mechanical damage or destruction of the housing unit will void the warranty.
- **Electromagnetic interference (EMI):**
  The technology is based on weak resonant fields. Extreme electromagnetic radiation (e.g., from industrial laboratories or high-energy security scanners at airports) can neutralize the programming of the fields..
    - *Guidance note: Environments classified as safe for the human body generally do not pose a risk to its functioning.*
- **System environment (vehicle sensors):**
  The achieved fuel savings depend on the control dynamics of the vehicle's electronics. Since sensor quality and software algorithms vary depending on the manufacturer, the results can differ even with identical fuel composition.

Operating Instructions & Validation

Fuel structure optimization (25% rule)

The physical structuring of the fuel occurs progressively over a period of several hours. To ensure continuous maximum efficiency, it is recommended to

refuel the vehicle when the fuel level is approximately 25%. Mixing the new fuel with the already structured fuel significantly reduces its activation time.

Note on comparative measurements (remanence effect)

Due to the system's inherent nature, the resonance effect also extends to the surrounding metallic fuel components. After a certain period of use, these act as a secondary radiation source.

- **After-effects:**
  After removal of the Fuel Catalyst plate, the optimization effect on the vehicle remains for **approximately one month**.
- **Measurement protocol:**
  To accurately determine the savings, the reference measurement (baseline consumption) **must be carried out BEFORE the initial installation**. A comparison "with the device" and an immediate test "after removal" will lead to distorted results due to the residual effect.

6. Disclaimer

The actual savings depend on individual factors such as driving style, vehicle condition, route profile, etc.