

MTC-Multi-Tech-Conditioner Range of Applications for Multi-Tech-Conditioner

Suitable for all 4-stroke engines

(ULP-unleaded petrol, Diesel, Bio diesel, LPG-Autogas, Bio-gas, etc.)

Motorbikes, Cars, Trucks, Locomotives, Railroad Engines, Vessels, Construction Machinery, Block Heat and Power Plants, Emergency Generators, Compressors, Power Tools, Gardening Tools, Motorsport, Windturbine Gearboxes, construction machinery



MTC - for Automotive Applications-Differential Gears, Manual and Automatic Gearboxes

MTC - for Wind Power Plants, Cablecars and Lift Gearboxes

MTC - for Hydraulic Plants, Servo Steering

MTC - for Metal Processing Industries
(Not Suitable for Water-Based Liquids and Mediums)

**One product for all
applications in its field!**

MTC®

Multi-Tech-Conditioner



Professionals trust MTC!
**MTC is official sponsor of the
Porsche-Team Dobberkau**
winner of the German Rally Series 2011.

Test by the company M.L. Kurier-Transporte-Maintal in Germany

"The average fuel consumption was between 13/14 liters/100km before the test and after application of MTC consumption was down to 11,5/12 liters/100km. This produced cost and fuel savings up to 11%."

Test through the National Marine University of the Ukraine

"As the result of the indexing of the working process of diesel engines 4Tsch17, 5/24 before and after the use of the additioner Multi-Tech-Conditioner a positive effect has been achieved that leads to the reduction of mechanical losses by 11% as well as temperature stress (temperature reduction of the exhaust gases) and reduced fuel use up to 6%." Good for your wallet and good for our environment. Less CO2 emission. With MTC you will not only reduce fuel expenses you will also be looking after our environment.

Good for your wallet and good for our environment



With MTC you will not only reduce fuel expenses you will also be looking after our environment.

CO2-Reduction
per 20.000km:

Petrol Engine
839kg Co2

Diesel Engine
950kg Co2

Data Baseline: 15% Fuel Reduction with MTC. Use: 12l / 100km. Inscription: Immediate Co2 Emission.

Our references speak for ist favour...

Test by Company Walther Metallwaren GmbH in Germany

"By the use of its application ensures a fuel reduction of approx. 200€ a month."

Test by Company General Overnight GO! Berlin/Potsdam/Schwerin in Germany

"By the use of its application ensured a fuel reduction of 9,1%." General Overnight GO!: "We will adopt Multi-Tech-Conditioner in our 110 power-driven vehicles successively."

Test at Team Kurs 113 Rally Allgäu Orient

"To our surprise we could determine a appreciable reduction when used in all our three cars, indeed after infilling your additive our Mercedes E220 T e.g. 10,5l instead of 12-13l per 100km inner city with a small trailer equal to 15%. We did not expect that your full-bodied advertising message indeed applies to and we are amazed!"



Porsche-Team Dobberkau



MTC®

Multi-Tech-Conditioner



MTC the Multi-Tech-Conditioner is the lubricant additive suitable for engines and gearboxes. MTC has ist specific inhibition (protection equation for soft metals).

- ✓ **Up to 15% Fuel Savings**
- ✓ **Reduces Downtime**
- ✓ **Improves the Engine Power and Operating Characteristics**
- ✓ **100% Free of Solid Substances**
- ✓ **No Sulphur**



With a certified quality warranty according to DIN EN ISO 9001 and ISO 1400.
More Information and Material Safety Data Sheet

www.mtc-oil.com



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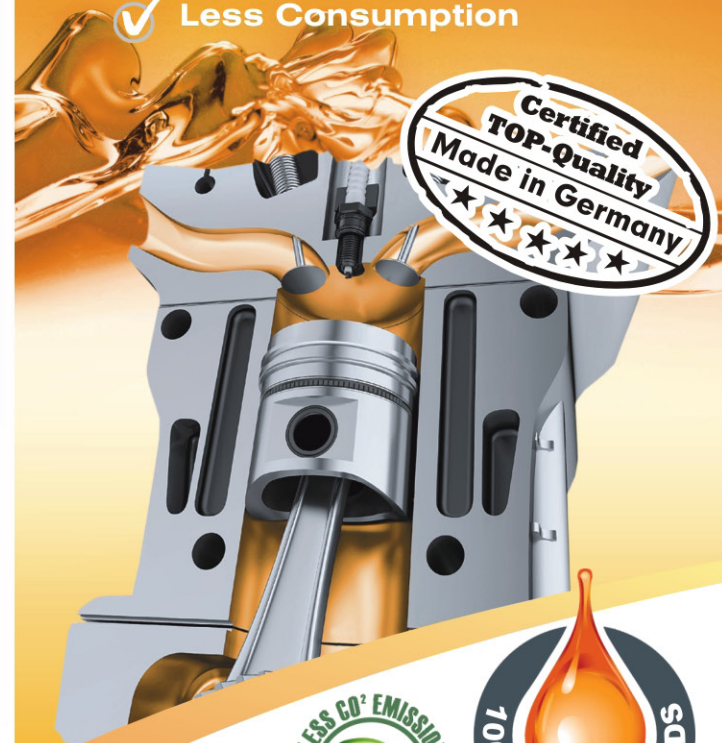
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Tel.: 0049-3631/4664-0, Fax: 0049-3631/466444

MTC- Trader

MTC®

Multi-Tech-Conditioner
More-Technical-Care

- ✓ **Attrition by Protection Equation**
- ✓ **More Engine Power**
- ✓ **Less Consumption**



High-Tech Lubricant Additive
for all Engines and Gearboxes

MTC® Multi-Tech- Conditioner

The Outstanding High-Tech Lubricant Additive

MTC stands for outstanding development in lubrication protection. Proven independent results have shown longer attrition, significant fuel reduction, basic oil improvement with optimized reliability of operation.

MTC is a synthetic high-tech additive especially for engines, gearboxes and machinery to improve surface quality.

MTC contains no floating solid particles like PTFE, ceramics, boron or graphite. Compared to other oil additives.

MTC does not create coatings which can cause blocked filters and abrasion of moving parts.

MTC's an anti-friction care system leads to minimized wear and longer machine service life.

MTC is free of flammable and hazardous solvents.

MTC contains a specific inhibition (protection equation) that will not damage any sealing and/or components composed of copper and copper alloys (bronze etc.).

MTC has been developed with the latest scientific know-how based on years of experience in production and treatment of lubrication solutions in German industry.

MTC has been developed by the finest scientific knowledge based on long standing experience in manufacturing lubricant additives and handling of special oils.

High-Tech Lubricant Additive for all Engines and Gearboxes

MTC - Top Quality for Longer Service Intervals

With a Certified Quality
Warranty according to
DIN EN ISO 9001
and ISO 1400.
100% Free of Solids
Less CO₂ Emission



Transform Friction into Gliding...

The MTC Multi-Tech-Conditioner is a newly developed synthetic additive for all lubricants in engines, gearboxes and other power train elements. Its high-tech equation improves surface quality of metal components thereby reducing friction losses.



...and Save Money on each Kilometer.

Due to reduction of friction losses by using MTC you improve efficiency of your combustion engine. The result: The fuel consumption decreases significantly and you get up to 15% further with each fuel tank.

This way Multi-Tech-Conditioner reduces fuel costs:

Diesel Price at	Fuel Costs without MTC	Costs for MTC	Savings on Fuel Consumption at 10-15%
1,35 €	3.240,- €	48,97 €	-481,92 €
1,45 €	3.480,- €	48,97 €	-517,92 €
1,60 €	3.840,- €	48,97 €	-571,92 €
1,75 €	4.200,- €	48,97 €	-625,92 €
Data Baseline: Consumption 12ltr Diesel/100km Fill Quantity: 700ml MTC/9.8ltr Engine Oil 15% Fuel Savings with MTC per 20,000km MTC-Price for 1 Litre			

MTC's Applications

Fuel Ratio per one Litre Oil for:

4-Stroke Engines

1:14 up to max. 1:10 / approx. 70ml up to max. 100ml = 7% up to max. 10%

Gearboxes Differentials

1:20 up to max. 1:10 / approx. 50ml up to max. 100ml = 5% up to max. 10%

Automotive Gears

1:30 up to max. 1:20 / approx. 30ml up to max. 50ml = 3% up to max. 5%

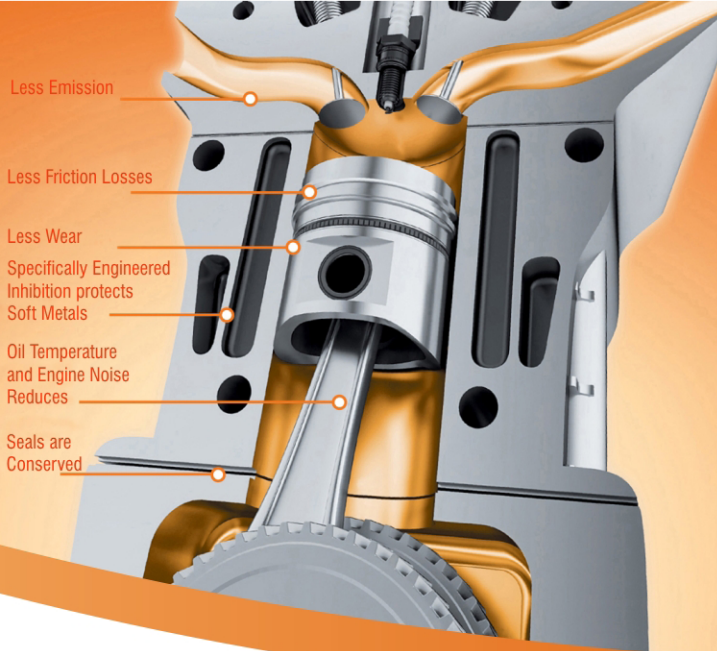
Hydraulic Systems

1:60 up to max. 1:50 / approx. 16ml up to max. 20ml = 1,6% up to max. 2%

Lubrication Grease

1:5/ approx. 200ml = max. 20%

Always amend the oil top-up quantity within the specified fuel ratio for ist point of use supplied by MTC.



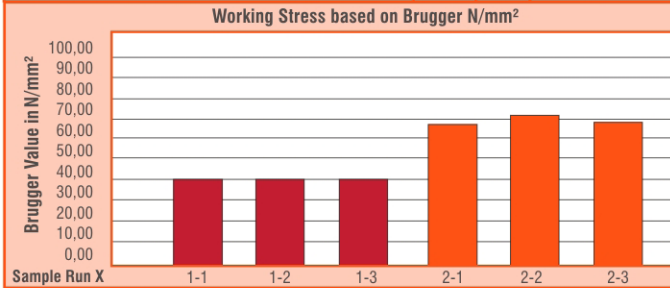
Product Information and Effectiveness of MTC

- Reduces Wear up to 80%
- Reduces Fuel Consumption Significantly
- Reduces Oil Consumption
- Increases Engine Power
- Minimizes Engine Noises
- Decreases Oil Temperature
- Operation with Solids e.g. PTFE, Ceramics, Boron or Graphite
- Conserves Engines and Sealing
- Prevents Damage to Automotive Parts
- Outstanding Effectiveness in Extreme Temperatures
- Excellent Down Time Reduction Characteristics
- Improves Failsafe Running Function
- Reduces CO₂ Emission
- Universal Use in Engines, Hydraulics, and Gearboxes (e.g. Automotive, etc.)
- Economical Mix Ratio
- Most Modern Inhibition (Protection Equation) for Soft Metals
- The technology used has been exclusively developed for MTC by the finest industry standard Laboratories with over 50 years experience in manufacturing lubricants with a certified quality warranty according to DIN EN ISO 9001 and ISO 14001.

Test Reports by the University of Mannheim Competence Centre Tribology

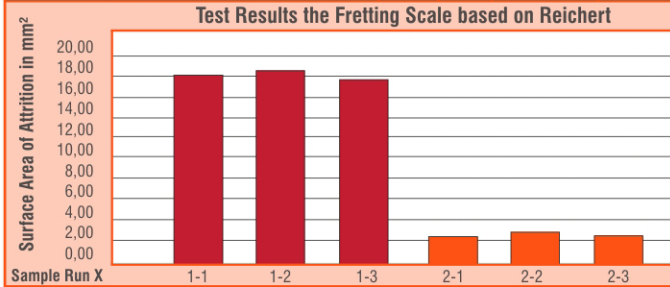
Test Protocol	Testing in Mixed Friction Range with the lubricant test instrument based on Brugger according to DIN 51347	
Test Parameter		
Load	400 N	Lubricants:
Duration of Test	30 s	1 Engine Oil 0W40 pure
Rotations	960 rpm	2 Engine Oil 0W40
Lubricant Parameters	26° C	by 7% Multi-Tech-Conditioner

	Results		
	Length (mm)	Width (mm)	Working Stress based on Brugger (N/mm²)
1-1 Full Synthetic High Performance Engine Oil 0W40 pure, Run 1	4,10	3,15	39,50
1-2 Full Synthetic High Performance Engine Oil 0W40 pure, Run 2	4,00	3,10	41,10
1-3 Full Synthetic High Performance Engine Oil 0W40 pure, Run 3	4,00	3,10	41,10
2-1 Full Synthetic High Performance Engine Oil 0W40 by 7% MTC, Run 1	3,20	2,40	66,30
2-2 Full Synthetic High Performance Engine Oil 0W40 by 7% MTC, Run 2	3,20	2,30	71,50
2-3 Full Synthetic High Performance Engine Oil 0W40 by 7% MTC, Run 3	3,10	2,40	68,50



Test Protocol	Testing with the Fretting Scale based on Reichert	
Test Parameter		
Load	15 N	Lubricants:
Slide Way	100 m	1 Engine Oil 0W40 pure
Rotations	900 rpm	2 Engine Oil 0W40
Lubricant Parameters	26° C	by 7% Multi-Tech-Conditioner

Test Series	Results			
	Length (mm)	Width (mm)	Area (mm²) 0,785 x i x w	Average Value (mm²)
1-1 Full Synthetic High Performance Engine Oil 0W40 pure, Run 1	5,949	3,444	16,08	16,14
1-2 Full Synthetic High Performance Engine Oil 0W40 pure, Run 2	6,072	3,488	16,63	
1-3 Full Synthetic High Performance Engine Oil 0W40 pure, Run 3	5,852	3,418	15,70	
2-1 Full Synthetic High Performance Engine Oil 0W40 by 7% MTC, Run 1	2,210	1,400	2,43	2,43
2-2 Full Synthetic High Performance Engine Oil 0W40 by 7% MTC, Run 2	2,360	1,400	2,59	
2-3 Full Synthetic High Performance Engine Oil 0W40 by 7% MTC, Run 3	2,117	1,369	2,28	



Contact Pressure per Area Unit after Brugger and Reichert DIN 51347/1+2

Explanation of tests and test results by the Competence Centre Tribology of the University of Mannheim in Germany:

The tests according to Brugger (Din-51347) and Reichert work within the range of mixed friction. Both tests are used to determine the lubricant's characteristics regarding to its sliding effort condition and mixed friction condition. The test results characterise the behavior of lubricants in a tribology system in mixed friction betweensteel friction bodies. With each test method serveral test runs (not less than 3) were carried out with a full synthetic high performance oil 0W-40 and afterwards in involvement of 7% Multi-Tech-Conditioner. Significant improvements are achieved by the of Multi-Tech-Conditioner. Also an excellent pressure absorbtion capacity was reached by MTC The test procedures in accordance to relevant standards are used to determine the characteristic values for lubricants with additives. The results refer to the current breadboard construction. Minimum requirement at Brugger 35 N/mm².

Copper Strip Corrosion Test (DIN ISO 2160) ASTMQ 150 Corrosiveness to Copper Greases: DIN 51811

A grinded, polished and degreased copper strip is going to be dunked into a sample vessel which contains the test liquid. If grease has to be investigated the copper strip is brushed on both sides with grease. This prepared copper strip goes into a sample vessel, which contains the same grease. The closed sample vessel is dunked into a heating bath for a defined period of time. After the end of the test duration the copper strip is removed from the sample vessel. The copper strip is cleaned with solvent and becomes carefully dried.

The corrosion level which is reached after the end of the test is evaluated by comparing the copper strip with a colour scale. The result is described in four main categories (1-4) and within this in two to five sub-categories (a-e). The method is used to verify the corrosion characteristics from lubricants and greases at copper. Corrosion at metals results amongst others from sulphur compounds which are part of the oil. It depends furthermore from the sulphur-species, which is used in the oil. Only absolute amount of sulphur allows no statement to the expected corrosion from metallic components.

Copper strip corrosion test: Typical test conditions e.g. for hydraulic oil is a duration of test of 3hrs at 100°C test temperature, the duration of test for lubricating grease is 24hrs at 50°C test temperature

Designation of the MTC's Test Result: Copper Strip Corrosion Test according to DIN ISO 2160: (3h/100°C)-1a

Technical Data Sheet MTC

Specifications			
Colour	Standard	bright	on DIN 51757
Density at 15 °C	g/cm³ 1,06		on DIN 51562
Viscosity at 40° C	mm² / s17,9		on DIN ISO 2592
Flash Point COC	°C122	122	on DIN ISO 3016
Pour Point	°C- 42	-42	on DIN EN ISO 2160
Copper Strip Corrosion Test	100A3	1a	on DIN EN ISO 2160