

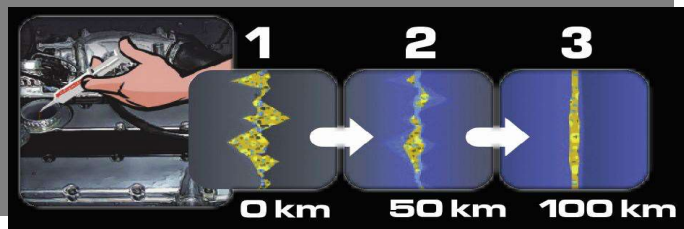
# CSX - CERAMIZER® FOR FOUR STROKE DIESEL, PETROL, HYBRID, CNG/LPG ENGINES USED IN SPORTS AND EXTREME CONDITIONS

## BENEFITS:

- Ensures constant protection of all engine metal parts prone to friction for 10 000 of sports driving and 15 000 km of normal driving. This protection is particularly important during extreme driving, heavy load to the engine, high oil temperature, sudden changes of speed.
- Eliminates dry engine starting, protecting all surfaces prone to friction during repeatable engine starts (especially in winter conditions with temperatures of even up to -30 degrees Celsius).
- Protects the engine against overheating caused by extreme overloads and friction during sports driving.
- Protects the following elements against friction: cylinders, rings, ring grooves, piston coats, bearing shells, crankshaft pivots, crankshafts bearings, camshaft cams, hydraulic tappets, cylinders and pistons of automated hydraulic tappets, camshaft bearings, camshaft chains, piston bolts, piston wheel assemblies, bearings and sprockets of oil pump, injectors (from the oil lubrication side).
- Hardens and increases resistance of metal surfaces in the engine prone to friction.
- Slows down wear and tear processes of metal surfaces for approx. 10 000km.
- Active nanocomponents smoothen microdefects and instantaneously lower the friction coefficient of engine surfaces prone to friction, thus ameliorating their lubrication.
- Increases the intervals of valve slack regulation.
- Increases power, torque, efficiency and engine dynamics.
- Lowers oil temperature.
- Restores nominal oil pressure.
- Decreases oil overconsumption.
- Increases and equalises compression pressure.
- Facilitates engine starts.
- Lowers the risk of frying and blocking the piston rings.
- Decreases vibrations and noise ensuring a quieter engine operation.
- Regenerates engine surfaces prone to friction during exploitation without the need to dismantle the mechanism- just by applying to oil.
- Compensates slack generating from friction of metal surfaces.
- Reduces smoke and particulate matter emissions.
- Enables fuel savings of up to 5%
- Increases engine durability.
- In most cases allows to save money on costly engine repairs.

## HOW IT WORKS:

Regeneration with Ceramizer enables to restore nominal size and proper geometry of surfaces in cooperation, where friction occurs, through mounting of a ceramic-metal layer with unique properties.



**Just add to oil and drive for 100 km.**

Regeneration is conducted without dismantling the mechanism during normal exploitation. Thermodynamic processes occurring on surfaces subject to friction purify them from residue and create the ceramic-metal layer in all spots, particularly the exploited / worn ones. The mounting process stabilizes along with the diminishing of the friction coefficient.

The mounting process makes the cracks of metal surfaces smaller and after reaching nominal values, stops automatically, having rebuilt the surfaces to a close to nominal shape. It means that in more worn-out spots the layer will be thicker than in those where friction was weaker, consequently restoring the geometry to nominal levels.

## GENERAL RULES OF APPLICATION:

- The highest effectiveness in Ceramizer usage is guaranteed when applying according to the user manual.
- Do not change the oil during the whole ceramization process (100 km or 3 mth) Change the oil according to the service book.
- Ceramizer can be mixed with any oil and applied to any type of engine: fuel, lpg,cng, diesel with fuel injectors, common-rail injection, injection pumps, Turbochargers, fuel catalysers, DPF/ FAP filters, lambda probes.
- Lowered dosage of Ceramizer will not bring the expected result.
- Increased dosage of Ceramizer (e.g. 2 times) will not cause any side effects, just prolongs the time of creation of the metal-ceramic layer.

## DOSAGING OF CERAMIZER®

Dosaging of Ceramizer CSX is presented in the table herebelow:

### PREVENTIVE DOSAGING

Engine size in liters:	1-2	2,1-3	3,1-5	5,1-8	8,1 - 12
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Number of CSX boxes:	1	2	3	4	5
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### REGENERATING DOSAGING

Engine size in liters:	1-2	2,1-3	3,1-5	5,1-8	8,1 - 12
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Number of CSX boxes:	2	4	6	8	10
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### Package contains (1 BOX):

Two syringes of Ceramizer product 2 x 4,5 g net weight and user manual.

## RECOMMENDATIONS:

- Perform cylinder compression pressure test (before and after applying Ceramizer) in order to confirm the efficiency of Ceramizer.
- Use at any stage of exploitation, we suggest to add CSX just after oil change in order to continue CSX treatment in longer period (until next oil change).
- Use preventively in order to protect the engine against friction, prolonging its lifespan and flawless operation time.
- CSX can be mixed with any oil type.
- Use CSX preventively on every oil change or 1/ 10000 km sports driving.
- Do not change oil during first 100 km after applying CSX.
- In a new engine use CSX after the run-in period and after engine overhaul use after min. 200 km.

## INSTRUCTIONS:

- Change oil and oil filter before applying Ceramizer.
- Start the engine and heat it up to working temperature of 90 °C.
- In the winter time, heat up the product to approx. 25 °C e.g. by holding it in the palm (the substance has the consistency of lube and dissolves in approx. 25 °C).
- Shake the syringe firmly for about 30 seconds.
- Pour the whole syringe/s in through the oil intake.
- Start the engine and leave it on idle for around 10 mins.
- Drive smoothly for approx. 100 km or leave the engine on idle for around 3h.

### 1. START ENGINE AND WARM IT UP



### 2. STOP ENGINE, ADD CERAMIZER



### 3. START ENGINE, LET IT RUN FOR 15 MIN



### 4. DRIVE GENTLY FOR APPROX. 100 KM OR LET ENGINE RUN FOR 3 HOURS ON IDLE



## REMARKS:

- In case of prior use of oil additives (with molybdenum or teflon) it is advised to flush the engine before using Ceramizer. Otherwise the ceramization process may last longer and its efficiency will be diminished.
- In case of mechanical malfunctions of the engine (broken piston ring, slack in valves, deep scratches on cylinders) it is advised

**Producer: CERAMIZER Sp. z o.o., Bartycka 116 Street, 00-716 Warsaw, Poland**  
**Phone: +48 22 498 0908, e-mail: office@ceramizer.com, website: [www.ceramizer.com](http://www.ceramizer.com)**  
**PRODUCT MADE IN POLAND**

- to fix the malfunctions before applying Ceramizer.
3. In case of engine overhaul, drive 200-300 km before applying Ceramizer.
  4. Ceramizer does not regenerate spots, where friction of rubber or plastic against metal occurs.
  5. If the engine has a centrifugal filter, before using Ceramizer, clean the filter or if possible for ceramization time dismantle it by using a bypass pipe. (if possible). In such filters Ceramizer particles tend to settle and consequently a lesser amount of substance arrives to friction surfaces.
  6. Syringes which have a minor leak from underneath the piston are still ready to use.
  7. During creation of the metal-ceramic layer a short term increase in emission of smoke may occur.
  8. CSX has the advantage of only 100 km needed for the process to finish (or 3hrs on idle), which allows for its effective use in motorsports.
  9. The CSX creates a layer which is as effective as in Ceramizer CS. This layer is however thinner and thus lasts for a shorter time, so it is advised to apply CSX on every oil change.
  10. The effectiveness of CSX is the same in every engine type.

### **SAFETY:**

1. Product is safe to use according to current EU regulations.
2. Store in temperature of below +40 °C. When the temperature crosses that level, the product may sedimentate and in such case shake the syringe and cool it down below +40 °C before using.
3. Does not clog oil filters or channels.
4. Does not contain molybdenum or teflon.
5. Ceramizer does not change oil properties, does not cause soot creation, sulphuric ash, phosphorus or sulphur creation, thus it does not affect DPF or FAP operations.

### **SAFETY GUARANTEE:**

1. We guarantee that CSX is not an oil densifier and will not damage the engine, because its concentrated 9g dosage does not change oil properties (including its viscosity).
2. During over 15 years of Ceramizer market presence there has never been a case of malfunction of the engine or other mechanism stemming from Ceramizer application.
3. Use of Ceramizer is completely safe, which is confirmed by independent tests and over 250 pages of customer testimonials (also video testimonials available on Youtube).
4. Ceramizer® can be used with any oil type.
5. Ceramizer® CSX does not contain teflon, molybdenum, sulphur or any substances harmful to the engine.
6. Ceramizer does not clog oil filters, or oil channels as its particles are smaller than filter pores.
7. Ceramizer® CSX does not react with rubber seals of the engine.

### **RESEARCH:**

Efficiency proven during tests available on [www.ceramizer.com](http://www.ceramizer.com)

### **EFFICIENCY:**

The durability and effectiveness of the metal-ceramic layer is around 10 000 km or 200 mth. After this mileage it is advised to reuse Ceramizer.

**Expiration date: 2024**

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