

# FAQ – Frequently Asked Questions

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## 1 When will the solid lubricant be available and how much will it cost?

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The first lubricant kits will be available for different motorcycle models starting in the spring of 2010.

Final decisions regarding the specific makes and models have not yet been made and will also depend on demand. We will continually provide up-to-date information on our website, however.

Unfortunately, we cannot make specific statements regarding costs here, as negotiations are still ongoing at this point. We will provide more information on this as it becomes available.

## 2 Do I need a TÜV (German Technical Inspection Authority) certificate for the lubricating rail?

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The issue of whether the lubricating rail is a structural modification to the motorcycle that must be registered is currently being explored. Our website will also provide you with information in this regard.

Since the Schunk lubricating rail will just be replacing the existing plastic rails in most cases, a solution should be very customer friendly and not require TÜV approval.

## 3 How long does the lubricant last? Can I replace it myself?

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A minimum service life covering 6,000 kilometers was aimed for during engineering and planning. This means that the lubricant cartridge could be replaced together with the tires when they are due for replacement. A longer service life may be possible, depending on the model and thus the available space.

In extended tests with a Suzuki V-Strom DL 1000, this level was reached with no problem.

Current planning involves lubrication units that can be replaced very easily. More work may be required for replacement, depending on the design of the machine.

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## 4 How are the chain rollers lubricated internally with the dry lubricant?

Thanks to the fantastic lubrication application effect on the roller surface and the chain wheels, the roller glides over the tooth tips into the tooth spaces with minimal resistance. Only minimal rotation between the roller and sleeve occurs here.

The lubrication points of the chain that are crucial for its service life are sealed with the O-/X-rings and are located between the chain pins and the sleeve, i.e. where no chain sprays can reach.

During the extended tests, however, it was noted that the fine lubrication dust was also distributed on the inside through the round 0.5 millimeter-wide gap between the roller and chain lug.

## 5 Will an O-ring chain treated with dry lubricant last as long as one with chain spray?

Our extended tests with the Suzuki V-Strom DL 1000 under realistic conditions yielded wear values far below the limit values and suggest an extrapolated service life of approx. 33,000 or 72,000 kilometers, depending on the test procedure used.

The following table contains the wear values obtained after 12,000 kilometers of testing.

	According to the maintenance manual	According to the DID
<b>Measured over ... pins</b>	21	16
New chain	318.1 mm	238.5 mm
Degree of wear	319.2 mm (0.41%)	
Degree of wear 1 (critical range)		240.9 mm (1%)
Degree of wear 2 (replace!)		243.3 mm (2%)
<b>After extended test of 12,000 km</b>	<b>318.5 mm (0.13%)</b>	<b>238.9 mm (0.17%)</b>
<b>Chain service life (extrapolated)</b>	<b>33,000 km</b>	<b>72,000 km (V1) 144,000 km (V2)</b>

### 6 Are the O-rings lubricated as well?

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Yes. The O- or X-rings lie directly in the abrasion dispersion area and are constantly covered with a light lubricating film. In addition, the sealing rings are not mechanically damaged in any way by running over the lubricating rail.

### 7 Doesn't the abraded lubricant adhere to the engine and frame parts as well?

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For the first few kilometers, i.e. when “breaking in” the lubricating rail, dust may build up slightly near the swing arm, gear and rear wheel rim. This dust can be blown off with compressed air at any gas station. As soon as the contour of the chain has been worked into the lubricant and it fully supports the chain, there is virtually no further soiling in the drive area.

With our dry lubricant, there is never any burning in into the exhaust or engine surfaces as can be the case with conventional lubrication.

In addition, the dry lubricant can easily be rinsed off surfaces and skin with warm water or mild soap suds.

### 8 Doesn't the abraded dry lubricant just volatilize as dust?

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Almost none of the lubricant particles picked up by the chain rollers are thrown off. They settle on the stressed components under the high pressure of the driving forces and are properly worked into the respective surfaces.

### 9 How does the fine abrasion of the dry lubricant adhere to chain wheels and the chain?

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One of the outstanding properties of the solid lubricant is that it forms a stable coating under pressure.

This coating is especially noticeably thick where the greatest contact pressures occur, i.e. in the tooth space and tooth flank areas where the greatest wear normally occurs.

Another advantage of dry material lubrication is that the plastic rails used for protection of the swing arm that are subjected to wear are also lubricated, so they last longer.

### 10 Does the lubricant have to be permanently pressed against the chain under spring pressure in order to lubricate it?

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No. Regular contact without any additional contact pressure is enough to apply the lubricant to the chain. This occurs through the wave-like whipping of the unstressed chain strand, the springy movements of the swing arm and gravity, which allows the chain to contact the lubricant.

Our driving tests have shown that the lubricating film also remains intact over a longer period of time without a supply of lubricant. This is comparable to conventional chain lubrication, which is also only applied at intervals.

The contact between the chain and the lubricating rail functions very reliably without the driver having to adjust or correct the rail.

### 11 How can a dry lubricant work in the rain?

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In contrast to conventional chain grease which is rinsed off when wet, the chain runs through the reservoir of the dry lubricant during a drive in the rain and builds up a lubricating emulsion. This emulsion dries completely after the rainy drive and leaves behind the almost invisible gray lubricating film on chain wheels and chain rollers that can be seen in dry weather.

After driving less than 10 kilometers, the thin lubricating film is completely renewed on the chain wheels.

### 12 Does the dry lubricant prevent rust from forming on the chain?

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Light surface rust on rollers and lugs is rubbed off as the component passes by the dry lubricant. Surface rust may form on chains that are not surface treated (nickel-plated or otherwise coated) in wet conditions over a longer period of time.

With surface-treated chains, only minimal corrosion could be expected after a longer period of time.

### 13 Are the dry lubricant and conventional chain spray compatible?

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The dry lubricant reacts to all oils and greases available on the market without complications. The lubricating effect is not affected.

### 14 What happens if the dry lubricant ends up on the brake system or tires? Is their function or adhesion affected?

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Driving tests with brakes and tires deliberately brought into contact with the lubricant showed that the lubricant did not affect their function in any way. Even with deliberately applied and clearly visible dry lubricant particles on the tire shoulder, the curve adhesion of the tire was not affected in any way whatsoever. These tests were carried out in a circular path at extreme tilts up to 52 degrees.

### 15 Can the dry lubricant also be used with racing motorcycles or for motocross/enduro?

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Yes. The driving tests are conducted in almost all motorcycle categories for a reason.

Very good results were achieved, in particular over the 5,000 test kilometers in mixed off-road use, despite the fact that the problem of dust and sand soiling is usually enormous here.

The entire distance was covered on a Yamaha WR 250 R without any grease or oil lubrication with minimal wearing of the chain and aluminum chain wheel.

With enduro/motocross machines, the usual chain guide can be used as a retainer for the lubricant cartridge. This translates to minimal additional weight and extremely easy installation.

Tests are also carried out with super sport machines under race track conditions and have so far yielded very good results. A final decision as to the areas in which the new dry lubricant will be used has yet to be made, but it will be posted on our website in the future.