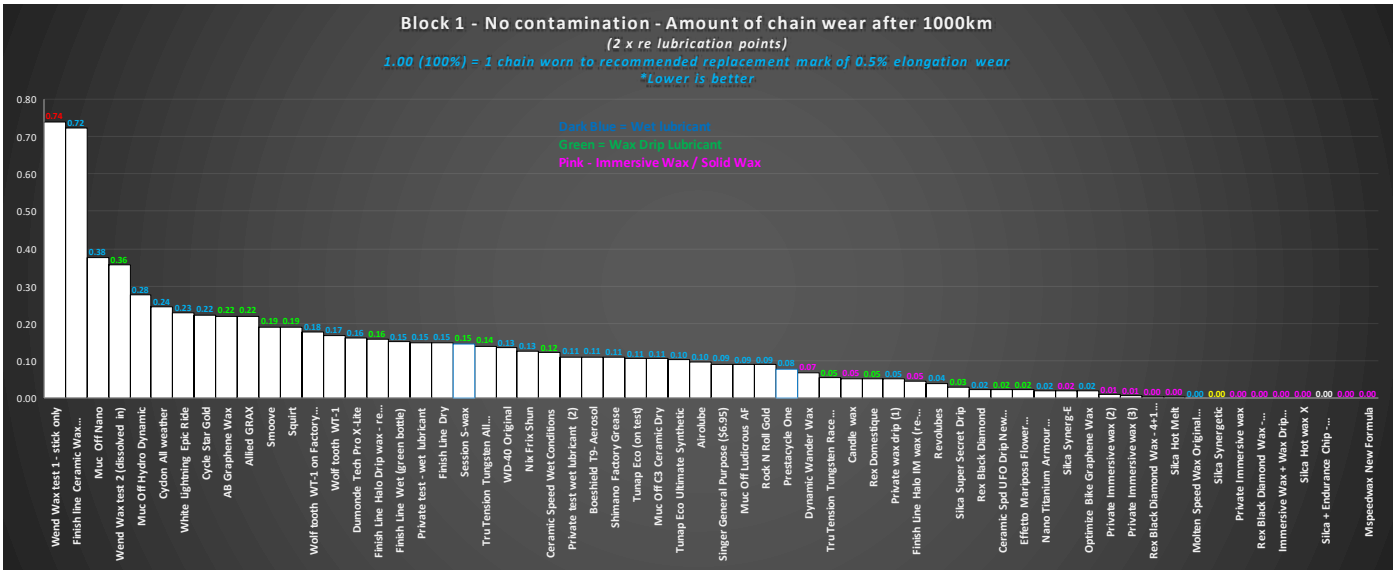
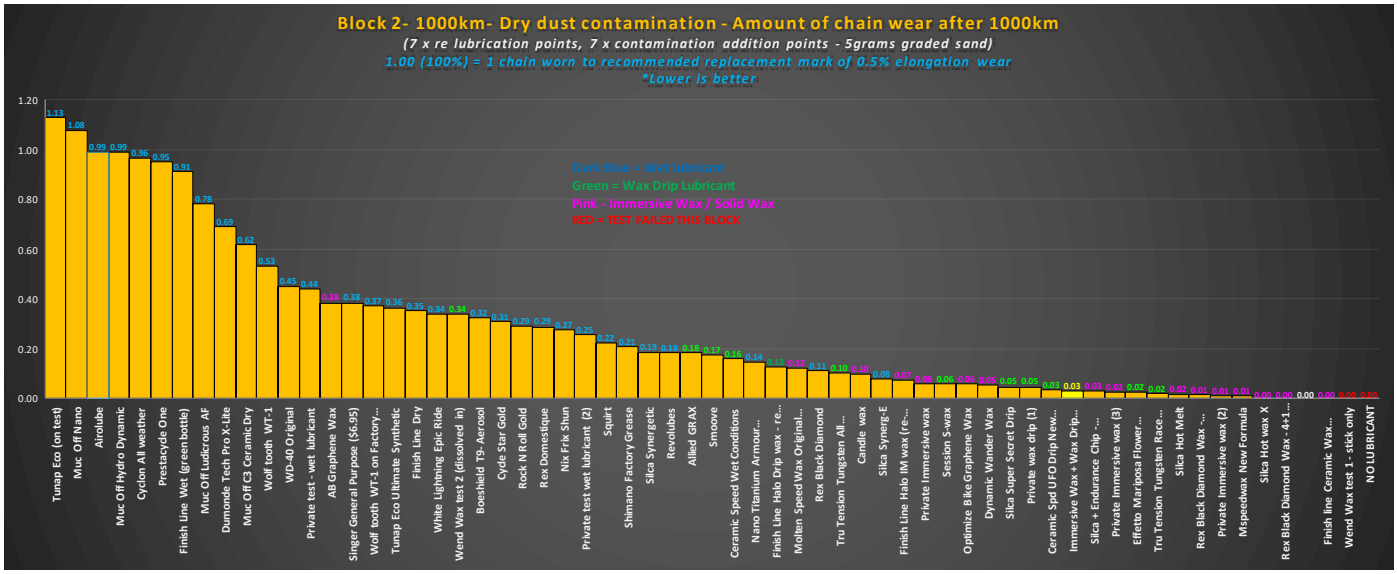
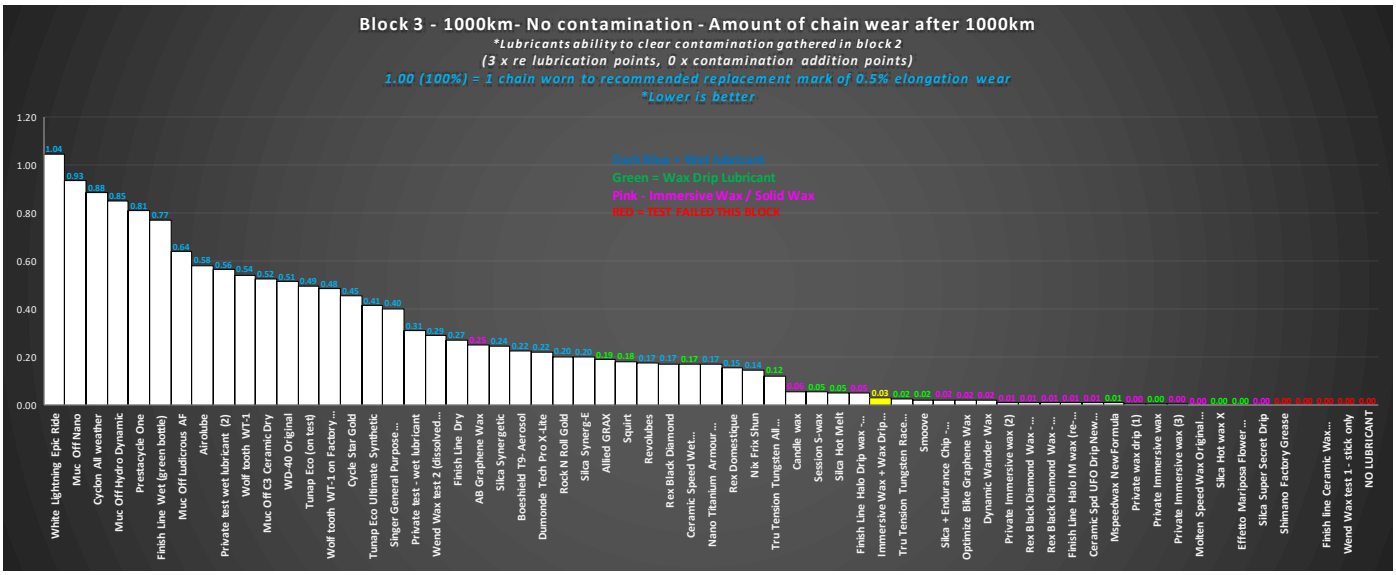
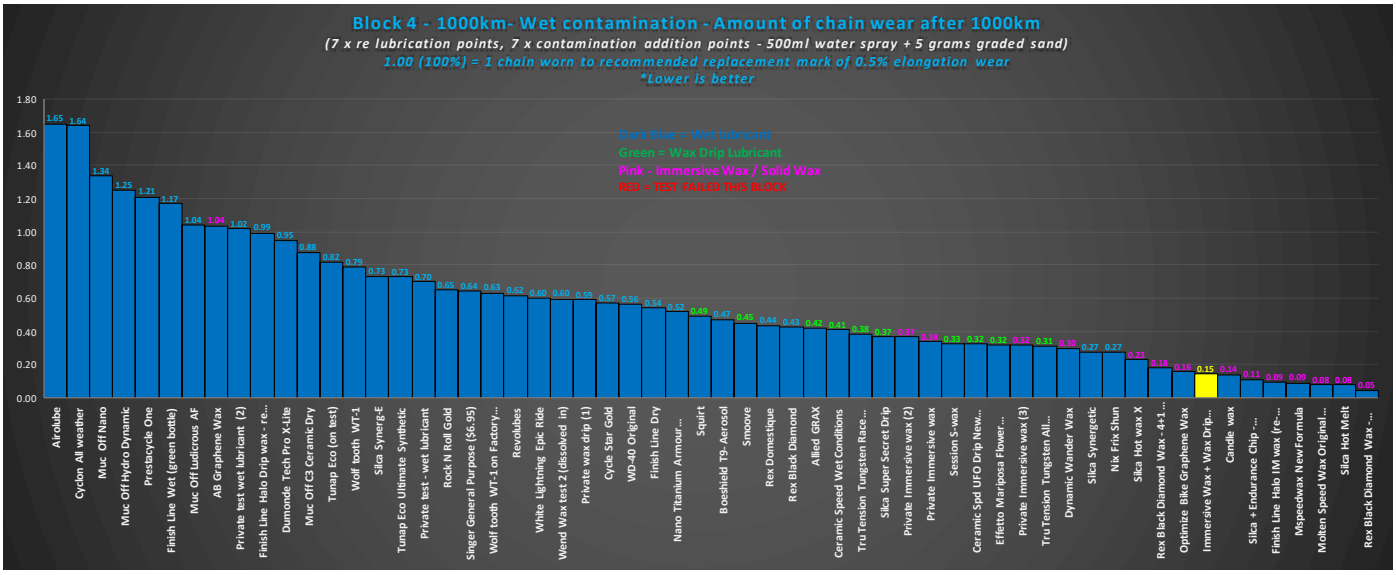
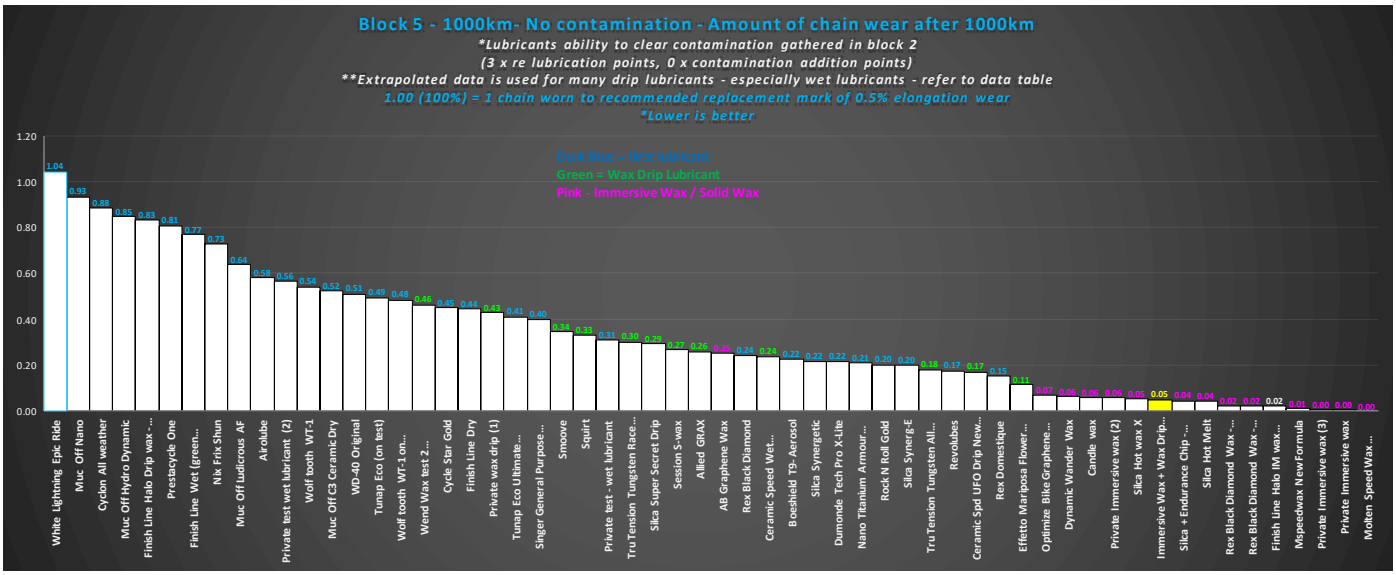
Graphs from main raw data tables. To understand the lubricant test properly please go to "Data Raw revamp 1.1" worksheet and read test information at top of that page. This will explain all the normal reader will need to know about bot the test as well as understanding the data from the test. For those who want to go full nerdy there is also a link to the "Full Test Brief" which goes through the test in full detail - all intervals, check measures, contamiation, correlations etc - this can also be accessed from website main page instructions tab. In short however if not going to reference the recommended information - the ZFC test runs for thousands of KM's, on an actual bicycle drivetrain, and includes zero contamination blocks, dry contamination block, wet contamination, and an extreme contamination test block. Each test block is 1000km long. There are re lubrication points (varies depending on test block), but no cleaning maintenance. It is up to the lubricant to protect the chain from wear. A high rate of wear of hardened steel parts makes it less likely the lubricant is low friction and efficient - it simply flat out takes friction to wear hardened steel parts at a notable rate. Thus, the lower the amount of wear (shorter bars) = higher performance. If you wish to understand how the wear correlation is used in this test (it can have some limitations), please refer to this section in the "Full Test Brief".

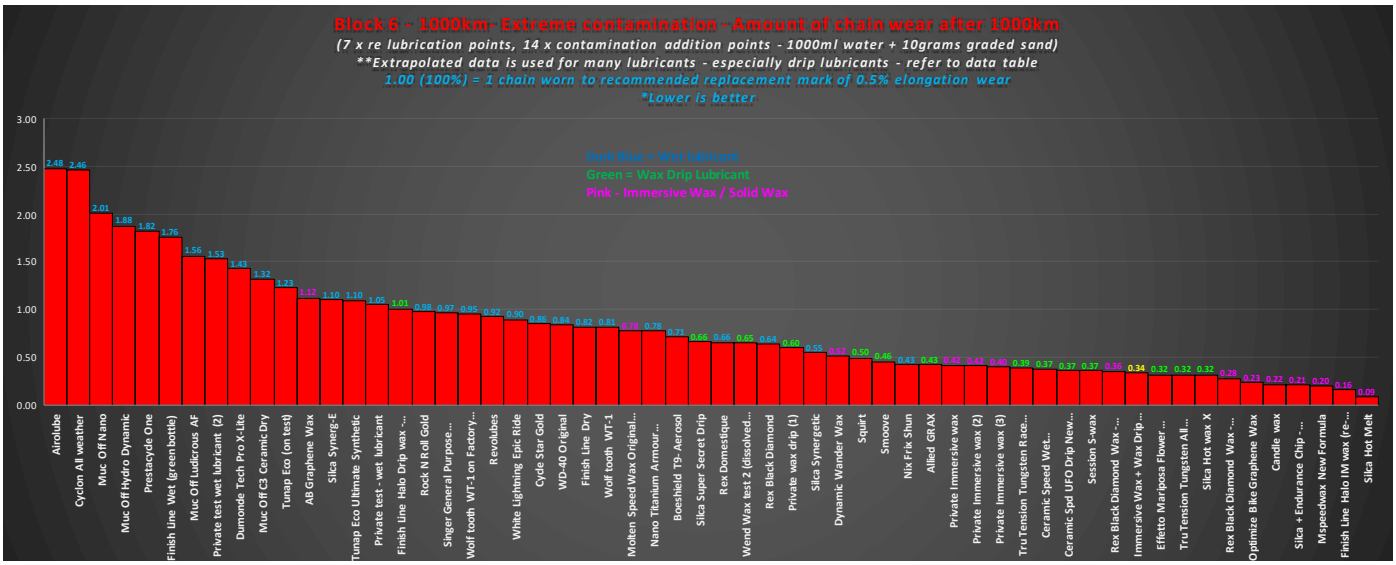





Block 3 - 1000km- No contamination - Amount of chain wear after 1000km
*Lubricants ability to clear contamination gathered in block 2
(3 x re lubrication points, 0 x contamination addition points)
1.00 (100%) = 1 chain worn to recommended replacement mark of 0.5% elongation wear
*Lower is better
Dark Blue = Wet lubricant
Green = Wax Drip Lubricant
Pink - Immersive Wax / Solid Wax
RED = TEST FAILED THIS BLOCK
1.20
1.00
0.80
0.60
0.40
0.20
0.00
White Lightning Epic Ride
Muc Off Nano
Cyclon All weather
Muc Off Hydro Dynamic
Prestacycle One
Finish Line Wet (green bottle)
Muc Off Ludicrous AF
Airolube
Private test wet lubricant (2)
Wolf tooth WT-1
Muc Off C3 Ceramic Dry
WD-40 Original
Tunap Eco (on test)
Wolf tooth WT-1 on Factory ...
Cycle Star Gold
Tunap Eco Ultimate Synthetic
Singer General Purpose ...
Private test - wet lubricant
Wend Wax test 2 (dissolved...
Finish Line Dry
AB Graphene Wax
Silca Synergetic
Boeshield T9- Aerosol
Dumonde Tech Pro X-Lite
Rock N Roll Gold
Silca Synerg-E
Allied GRAX
Squirt
Revolubes
Rex Black Diamond
Ceramic Speed Wet...
Nano Titanium Armour ...
Rex Domestique
Nik Frix Shun
Tru Tension Tungsten All...
Candle wax
Session S-wax
Silca Hot Melt
Finish Line Halo Drip wax -...
Immersive Wax + Wax Drip...
Tru Tension Tungsten Race...
Smoove
Silca + Endurance Chip -...
Optimize Bike Graphene Wax
Dynamic Wander Wax
Private Immersive wax (2)
Rex Black Diamond Wax -...
Rex Black Diamond Wax -...
Finish Line Halo IM wax (re-...
Ceramic Spd UFO Drip New...
Mspeedwax NewFormula
Private wax drip (1)
Private Immersive wax
Private Immersive wax (3)
Molten Speed Wax Original...
Silca Hot wax X
Effetto Mariposa Flower ...
Silca Super Secret Drip
Shimano Factory Grease
Finish line Ceramic Wax...
Wend Wax test 1 - stick only
NO LUBRICANT


Block 4 - 1000km- Wet contamination - Amount of chain wear after 1000km
(7 x re lubrication points, 7 x contamination addition points - 500ml water spray + 5 grams graded sand)
1.00 (100%) = 1 chain worn to recommended replacement mark of 0.5% elongation wear
*Lower is better
Dark Blue = Wet lubricant
Green = Wax Drip Lubricant
Pink - Immersive Wax / Solid Wax
RED = TEST FAILED THIS BLOCK
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Airolube
Cyclon All weather
Muc Off Nano
Muc Off Hydro Dynamic
Prestacycle One
Finish Line Wet (green bottle)
Muc Off Ludicrous AF
AB Graphene Wax
Private test wet lubricant (2)
Finish Line Halo Drip wax - re...
Dumonde Tech Pro X-Lite
Muc Off C3 Ceramic Dry
Tunap Eco (on test)
Wolf tooth WT-1
Silca Synerg-E
Tunap Eco Ultimate Synthetic
Private test - wet lubricant
Rock N Roll Gold
Singer General Purpose ($6.95)
Wolf tooth WT-1 on Factory...
Revolubes
White Lightning Epic Ride
Wend Wax test 2 (dissolved in)
Private wax drip (1)
Cycle Star Gold
WD-40 Original
Finish Line Dry
Nano Titanium Armour ...
Squirt
Boeshield T9- Aerosol
Smoove
Rex Domestique
Rex Black Diamond
Allied GRAX
Ceramic Speed Wet Conditions
Tru Tension Tungsten Race...
Silca Super Secret Drip
Private Immersive wax (2)
Private Immersive wax
Session S-wax
Ceramic Spd UFO Drip New...
Effetto Mariposa Flower...
Private Immersive wax (3)
Tru Tension Tungsten All...
Dynamic Wander Wax
Silca Synergetic
Nik Frix Shun
Silca Hot wax X
Rex Black Diamond Wax - 4+1...
Optimize Bike Graphene Wax
Immersive Wax + Wax Drip...
Candle wax
Silca + Endurance Chip -...
Finish Line Halo IM wax (re-...
Mspeedwax NewFormula
Molten Speed Wax Original...
Silca Hot Melt
Rex Black Diamond Wax -...


Block 5 - 1000km- No contamination - Amount of chain wear after 1000km
*Lubricants ability to clear contamination gathered in block 2
(3 x re lubrication points, 0 x contamination addition points)
**Extrapolated data is used for many drip lubricants - especially wet lubricants - refer to data table
1.00 (100%) = 1 chain worn to recommended replacement mark of 0.5% elongation wear
*Lower is better
Dark Blue = Wet lubricant
Green = Wax Drip Lubricant
Pink - Immersive Wax / Solid Wax
1.20
1.00
0.80
0.60
0.40
0.20
0.00
White Lightning Epic Ride
Muc Off Nano
Cyclon All weather
Muc Off Hydro Dynamic
Finish Line Halo Drip wax -...
Prestacycle One
Finish Line Wet (green...
Nik Frix Shun
Muc Off Ludicrous AF
Airolube
Private test wet lubricant (2)
Wolf tooth WT-1
Muc Off C3 Ceramic Dry
WD-40 Original
Tunap Eco (on test)
Wolf tooth WT-1 on...
Wend Wax test 2...
Cycle Star Gold
Finish Line Dry
Private wax drip (1)
Tunap Eco Ultimate...
Singer General Purpose...
Smoove
Squirt
Private test - wet lubricant
Tru Tension Tungsten Race...
Silca Super Secret Drip
Session S-wax
Allied GRAX
AB Graphene Wax
Rex Black Diamond
Ceramic Speed Wet...
Boeshield T9- Aerosol
Silca Synergetic
Dumonde Tech Pro X-Lite
Nano Titanium Armour...
Rock N Roll Gold
Silca Synerg-E
Tru Tension Tungsten All...
Revolubes
Ceramic Spd UFO Drip New...
Rex Domestique
Effetto Mariposa Flower...
Optimize Bike Graphene...
Dynamic Wander Wax
Candle wax
Private Immersive wax (2)
Silca Hot wax X
Immersive Wax + Wax Drip...
Silca + Endurance Chip -...
Silca Hot Melt
Rex Black Diamond Wax -...
Rex Black Diamond Wax -...
Finish Line Halo IM wax...
Mspeedwax NewFormula
Private Immersive wax (3)
Private Immersive wax
Molten Speed Wax...


Block 6 – 1000km- Extreme contamination – Amount of chain wear after 1000km
(7 x re lubrication points, 14 x contamination addition points - 1000ml water + 10grams graded sand)
**Extrapolated data is used for many lubricants - especially drip lubricants - refer to data table
1.00 (100%) = 1 chain worn to recommended replacement mark of 0.5% elongation wear
*Lower is better
Dark Blue - Wet lubricant
Green = Wax Drip Lubricant
Pink - Immersive Wax / Solid Wax
3.00
2.50
2.00
1.50
1.00
0.50
0.00
2.48 Airolube
2.46 Cyclon All weather
2.01 Muc Off Nano
1.88 Muc Off Hydro Dynamic
1.82 Prestacycle One
1.76 Finish Line Wet (green bottle)
1.56 Muc Off Ludicrous AF
1.53 Private test wet lubricant (2)
1.43 Dumonde Tech Pro X-Lite
1.32 Muc Off C3 Ceramic Dry
1.23 Tunap Eco (on test)
1.12 AB Graphene Wax
1.10 Silca Synerg-E
1.10 Tunap Eco Ultimate Synthetic
1.05 Private test - wet lubricant
1.01 Finish Line Halo Drip wax -...
0.98 Rock N Roll Gold
0.97 Singer General Purpose ...
0.95 Wolf tooth WT-1 on Factory...
0.92 Revolubes
0.90 White Lightning Epic Ride
0.86 Cycle Star Gold
0.84 WD-40 Original
0.82 Finish Line Dry
0.81 Wolf tooth WT-1
0.78 Molten Speed Wax Original...
0.78 Nano Titanium Armour ...
0.71 Boeshield T9- Aerosol
0.66 Silca Super Secret Drip
0.66 Rex Domestique
0.65 Wend Wax test 2 (dissolved ...
0.64 Rex Black Diamond
0.60 Private wax drip (1)
0.55 Silca Synergetic
0.52 Dynamic Wander Wax
0.50 Squirt
0.46 Smoove
0.43 Nix Frik Shun
0.43 Allied GRAX
0.42 Private Immersive wax
0.42 Private Immersive wax (2)
0.40 Private Immersive wax (3)
0.39 TruTension Tungsten Race...
0.37 Ceramic Speed Wet...
0.37 Ceramic Spd UFO Drip New...
0.37 Session S-wax
0.36 Rex Black Diamond Wax -...
0.34 Immersive Wax + Wax Drip ...
0.32 Effetto Mariposa Flower ...
0.32 TruTension Tungsten All...
0.32 Silca Hot wax X
0.28 Rex Black Diamond Wax -...
0.23 Optimize Bike Graphene Wax
0.22 Candle wax
0.21 Silca + Endurance Chip - ...
0.20 Mspeedwax New Formula
0.16 Finish Line Halo IM wax (re-...
0.09 Silca Hot Melt