

Brand / weight / model	nominal weight	Reported cSt @40C (centiStokes)	Reported cSt @100C (centiStokes)	Reported Viscosity Index (VI)	Recaclulated Viscosity Index (VI)	Viscosity/ Temperature Coefficient (VTC)	VT (cSt@40/cSt@100)
Red Line (like water, Clear)		5.50	2.30	344	343	0.58	2.39
PJ1 Cartridge Pro For Fluid (3.5 wt)	3.5	14.60	3.60		134	0.75	4.06
Maxima Bicycle Fork fluid (5wt)	5	15.90	3.51	150	98	0.78	5.53
Bel-Ray Fork Oil (7wt)	7	29.00	5.20	110	108	0.82	5.58
PJ1 Fork Tuner (10wt)	10	33.90	5.70		106	0.83	5.95
Motul Fork Oil, Comfort (Medium 5-10)	7.5	35.30	6.00	115	114	0.83	5.88
Castrol Synthetic Fork Oil (10wt)	10	42.00	7.50	150	147	0.82	5.60
Kayaba G15S	15	47.30	7.20	112	112	0.85	6.57
Bel-Ray Fork Oil (15wt)	15	53.00	7.50	103	103	0.86	7.07
PJ1 Fork Tuner (20wt)	20	61.70	8.40		106	0.86	7.35
Silkolene Fork Oil (20wt)	20	67.70	8.75	101	101	0.87	7.74
Bel-Ray Fork Oil (20wt)	20	73.50	9.50	106	107	0.87	7.74

Motul Fork Oil, Comfort (Heavy, 15-20)		77.90	10.10	111	112	0.87	7.71
Torco Synthetic RTF		82.50	14.33	182	182	0.83	5.76
Motorex Semi-Bath fork oil, 5W40		90.90	14.60	169	168	0.84	6.23
ELF Moto Fork Oil (20)	20	99.00	14.60	150	153	0.85	6.78
Agip Fork (20wt)	20	104.00	15.03	155	151	0.86	6.92
Silkolene Fork Oil (30wt)	30	105.00	11.84	101	102	0.89	8.87
PJ1 Fork Tuner (30wt)	30	116.90	15.00		133	0.87	7.79
Spectro, Golden American 4 (20w50)		155.00	19.60	146	145	0.87	7.91

Fork oil weights

The real story...

This table is sorted by real viscosity (centiStokes), not by nominal weight. Note that the nominal weight is ... um... not really in the same order as the real weight.

The other interesting number is the Viscosity Index (VI), which is how stable the viscosity is over a wide temperature range. Bigger numbers are better. It doesn't just mean hot-day vs. cold day, it means beginning of race vs. end.

Brand / weight / model	nominal weight	Reported cSt @40C (centiStokes)	Reported cSt @100C (centiStokes)	Reported Viscosity Index (VI)	Recalculated Viscosity Index (VI)	Viscosity/Temperature Coefficient (VTC)	VT (cSt@40/cSt@100)
Red Line (like water, Clear)		5.50	2.30	344	343	0.58	<u>2.39</u>
Red Line (extra light, Blue)		9.80	4.00	402	403	0.59	<u>2.45</u>
Spectro, Golden (ultra light)		10.40	4.40	385	440	0.58	2.36
RockShox (2.5w Light cartridge (Torco 5)	2.5	10.75	4.00	325	340	0.63	2.69
Torco RFF 5	5	10.75	4.00	325	340	0.63	2.69
Bel-Ray HVI (3 wt)	3	11.00	3.85	296	297	0.65	2.86
Kayaba (K2-S shock)		11.30	4.00	310	310	0.65	2.83
Showa Suspension Fluid SS-25 (2.5wt. Stock Shock, OEM)	2.5	12.50	3.90	239	239	0.69	3.21
Silkolene Pro RSF (2.5wt)	2.5	13.60	5.83	464	465	0.57	2.33
Maxima Racing Shock Fluid (light, 3wt)	3	14.00	5.20	378	370	0.63	2.69
Torco RSF Light (purple)		14.50	4.70	288	286	0.68	3.09
PJ1 Cartridge Pro For Fluid (3.5 wt)	3.5	14.60	3.60		134	0.75	<u>4.06</u>
Castrol Fork Oil (10wt)	10	15.00	4.00	150	179	0.73	3.75
RaceTech	4.25	15.20	4.40	222	226	0.71	3.45

(Motorex) (Light US1)							
Penske (lightweight shock fluid)		15.50	6.30	434	434	0.59	2.46
Kayaba 01 (zero-One Fork)		15.60	3.45	150	96	0.78	4.52
Yamaha 01 Fork oil (Kayaba)		15.60	3.45	150	96	0.78	4.52
Showa Suspension Fluid SS-05 (Stock fork, OEM)		15.65	3.60	116	113	0.77	4.36
Maxima Bicycle Fork fluid (5wt)	5	15.90	3.51	150	98	0.78	<u>5.53</u>
Maxima Fork oil (5 wt)	5	15.90	3.51	150	98	0.78	4.53
Maxima Racing Fork fluid (85/150, 5 wt)	5	15.90	3.51	150	98	0.78	4.53
Motul Fork Oil (Very Light) ??		16.00	3.50	100	95	0.78	4.57
Rockshox (52 Medium, Hydracoil) (Torco 7)	7	16.10	5.05	285	280	0.69	3.19
Torco RFF 7	7	16.10	5.05	285	280	0.69	3.19
Motul Shock Oil (2.5-20)		16.10	6.20	400	403	0.61	2.60
showa Suspension Fluid SS-7 (5wt) (Apolo)	5	16.44	3.76	135	119	0.77	4.37
Spectro, Golden Spectro cartridge Fork Fluid		16.90	3.82	150	119	0.77	4.42

(85/150, Very light)							
Honda Pro HP Fork Oil (5wt)	5	17.00	3.80	140	115	0.78	4.47
Pro-Circuit PC-Oil		17.00	4.10		149	0.76	4.15
Bel-Ray Fork Oil (5 wt)	5	17.10	4.10	146	147	0.76	4.17
Kayaba G5	5	17.70	3.50	72	72	0.80	5.06
ELF Moto Fork oil SYN (2.5)	2.5	18.00	4.00	121	122	0.78	4.50
Motul Fork Oil, Comfort (Light 5)	5	18.20	4.00	124	119	0.78	4.55
Motul Fork Oil, Factory Line (Light 5)	5	18.30	4.20	138	138	0.77	4.36
Red Line (Light, Yellow)		18.40	7.10	407	409	0.61	2.59
Agip Fork (2.5 wt)	2.5	18.50	4.37	152	153	0.76	4.23
Bardahl (52 Fork Oil)		19.30	5.10	212	212	0.74	3.78
Bel-Ray HVI (5wt)	5	19.50	6.66	345	345	0.66	2.93
Torco RFF 10	10	19.90	5.70	260	256	0.71	3.49
Motul Fork Oil (Light)??		20.00	6.00	260	280	0.70	3.33
Spectro, SX "400"		20.90	8.90	400	460	0.57	2.35
Maxima Racing Shock Fluid (Medium, 7wt)	7	21.00	7.30	349	358	0.65	2.88
Spectro Fork Oil (5wt)	5	21.60	4.40	119	114	0.80	4.91
Agip Fork (5wt)	5	22.00	5.20	175	178	0.76	4.23

Silkolene Fork Oil (5wt)	5	22.30	4.40	106	107	0.80	5.07
Motul Fork Oil, Factory Line (Medium, 5-10)	7.5	22.30	6.20	254	253	0.72	3.60
Elf Moto Fork OIL SYN (5)	5	23.30	4.80	130	129	0.79	4.85
PJ1 Fork Tuner (2.5wt)	2.5	26.10	4.90		111	0.81	5.33
Spectro, Golden Spectro Cartridge Fork Fluid (125/150, Very Light) (Marzzochi)		26.10	5.25	150	135	0.80	4.97
Spectro, Golden (Very Light)		26.40	9.90	400	397	0.63	2.67
Maxima Racing Fork Fluid (125/150), 7wt)	7	26.70	5.36	151	138	0.80	4.98
Silkolene Pro RSF (5wt)	5	26.70	9.46	372	372	0.65	2.82
PJ1 Fork Tuner (7.5wt)	7.5	27.50	5.10		113	0.81	5.39
Castrol Synthetic Fork Oil (5wt)	5	28.00	5.70	151	149	0.80	4.91
Åhlins (Shock)		28.70	9.40	340	340	0.67	3.05
Bel-Ray Fork Oil (7wt)	7	29.00	5.20	110	108	0.82	<u>5.58</u>
Maxima Racing	10	29.00	9.40	334	336	0.68	3.09

Shock Fluid (Heavy, 10wt)							
Å-hlins (High Performance)		30.25	10.18	352	352	0.66	2.97
Red Line (Medium, Red)		30.40	10.80	369	374	0.64	2.81
Agip Fork (7.5wt)	7.5	31.00	6.40	163	165	0.79	4.84
PJ1 Fork Tuner (5wt)	5	31.20	5.40		106	0.83	5.78
Fox Shox (Torco RSF Medium)		31.82	9.57	300	309	0.70	3.32
Torco RSF Medium (Purple)		31.82	9.57	300	309	0.70	3.32
Maxima Bicycle Fork Fluid (10wt)	10	32.00	6.28	151	151	0.80	5.10
Maxima Fork Oil (10wt)	10	32.00	6.28	151	151	0.80	5.10
Spectro Fork Oil (10wt)	10	32.80	5.60	111	107	0.83	5.86
RaceTech (Motorex) (Medium US2)	10	32.90	7.20	200	192	0.78	4.57
Bel-Ray Fork Oil (10wt)	10	33.00	5.90	123	123	0.82	5.59
RockShox (10wt) (Torco 15)	10	33.00	8.40	240	247	0.75	3.93
Torco RFF 15	15	33.00	8.40	240	247	0.75	3.93
Shell Advance Fork 5	5	33.05	7.09	185	185	0.79	4.66
Kayaba G10S	10	33.20	5.70	111	111	0.83	5.82
Bel-Ray	10	33.50	10.00	306	308	0.70	3.35

HVI (10wt)							
PJ1 Fork Tuner (10wt)	10	33.90	5.70		106	0.83	<u>5.95</u>
Red Line D4 ATF		34.00	7.50	198	197	0.78	4.53
Mobil 1 Synthetic ATF		34.00	7.60	199	202	0.78	4.47
Silkolene Fork Oil (10wt)	10	34.90	7.05	169	169	0.80	4.95
Motul Fork Oil, Comfort (Medium 5-10)	7.5	35.30	6.00	115	114	0.83	<u>5.88</u>
Bardahl (10w Fork Oil)	10	35.50	6.90	158	158	0.81	5.14
Showa Suspension Fluid SS8 (10wt) (Apollo)	10	36.47	7.24	200	167	0.80	5.04
Silkolene Pro RSF (7.5wt)	7.5	37.00	12.00	322	339	0.68	3.08
Shell Advance Fork 10	10	38.97	7.44	161	161	0.81	5.24
Castrol Synthetic Fork Oil (10wt)	10	42.00	7.50	150	147	0.82	<u>5.60</u>
RockShox (15w Extra Heavy) (Torco 20)	15	42.80	10.40	250	245	0.76	4.12
Torco RFF 20	20	42.80	10.40	250	245	0.76	4.12
Agip Fork (10wt)	10	45.00	8.30	164	162	0.82	5.42
Elf Moto Fork Oil SYN (10)	10	45.40	7.60	135	134	0.83	5.97
Spectro Fork Oil (15wt)	15	45.60	7.20	119	118	0.84	6.33

Repsol Moto Horquillas Fork Oil (10W20)		46.00	8.40	150	161	0.82	5.48
Maxima Bicycle Fork Fluid (15wt)	15	46.00	8.48	154	163	0.82	5.42
Maxima Fork Oil (15wt)	15	46.00	8.48	154	163	0.82	5.42
Maxima Racing Fork Fluid (235/150, 15wt)	15	46.00	8.48	154	163	0.82	5.42
Castrol Fork Oil (15wt)	15	46.50	8.30	150	155	0.82	5.60
ELF Moto Fork Oil (10wt)	10	47.00	8.30	153	153	0.82	5.66
Spectro, Golden (light)		47.27	16.76	235	370	0.65	2.82
Kayaba G15S	15	47.30	7.20	112	112	0.85	<u>6.57</u>
Silkolene Pro RSF (10wt)	10	47.36	13.69	303	303	0.71	3.46
Silkolene Fork Oil (15wt)	15	48.45	8.50	153	153	0.82	5.70
Bel-Ray HVI (15wt)	15	49.00	13.90	297	298	0.72	3.53
Bel-Ray Fork Oil (15wt)	15	53.00	7.50	103	103	0.86	<u>7.07</u>
Red Line High Temp ATF		53.90	10.00	172	176	0.81	5.39
PJ1 Fork Tuner (15wt)	15	55.30	8.70		133	0.84	6.36
Motul Fork Oil, Factory Line (Heavy, 15-20)		61.00	13.20	224	225	0.78	4.62
PJ1 Fork	20	61.70	8.40		106	0.86	<u>7.35</u>

Tuner (20wt)							
Spectro Fork Oil (20wt)	20	65.00	8.90	110	111	0.86	7.30
Maxima Bicycle Fork Fluid (20w)	20	65.00	12.90	201	204	0.80	5.04
Maxima Fork Oil (20w)	20	65.60	12.90	201	202	0.80	5.09
Red Line (Heavy)		66.80	16.00	256	256	0.76	4.18
Shell Advance Fork 15	15	67.00	10.37	120	143	0.85	6.46
Silkolene Fork Oil (20wt)	20	67.70	8.75	101	101	0.87	<u>7.74</u>
Castrol Fork Oil (20wt)	20	68.00	11.20	150	159	0.84	6.07
Repsol Moto Horquillas Fork Oil (15W30)		68.00	11.20	150	159	0.84	6.07
Agip Fork (15wt)	15	69.00	11.50	162	163	0.83	6.00
Elf Moto Fork Oil (15)	15	72.60	11.60	155	155	0.84	6.26
Bel-Ray Fork Oil (20wt)	20	73.50	9.50	106	107	0.87	<u>7.74</u>
Motul Fork Oil, Comfort (Heavy, 15-20)		77.90	10.10	111	112	0.87	<u>7.71</u>
Torco Synthetic RTF		82.50	14.33	182	182	0.83	<u>5.76</u>
Motorex Semi-Bath fork oil, 5W40		90.90	14.60	169	168	0.84	<u>6.23</u>
Silkolene Pro RSF (15wt)	15	92.50	19.50	235	233	0.79	4.77
ELF Moto Fork Oil (20)	20	99.00	14.60	150	153	0.85	<u>6.78</u>

Agip Fork (20wt)	20	104.00	15.03	155	151	0.86	<u>6.92</u>
Silkolene Fork Oil (30wt)	30	105.00	11.84	101	102	0.89	<u>8.87</u>
Bel-Ray Fork Oil (30wt)	30	105.00	12.00	104	104	0.89	8.75
Kayaba G30S	30	116.10	16.70	156	156	0.86	6.95
PJ1 Fork Tuner (30wt)	30	116.90	15.00		133	0.87	<u>7.79</u>
Spectro, Golden American 4 (20w50)		155.00	19.60	146	145	0.87	<u>7.91</u>

Generalities

Most cartridge type forks use a viscosity of 16 cSt@40C. (Except for Ohlins R&T, 19 cSt@40) Most damper rod type forks are spec'd for a viscosity of 34 cSt@40C. (Basically ATF Fluid) although most setups require far thicker for adequate performance.

Ohlins Steering damper use 16 cSt @40C for street and 19 cSt@40C for enduro and MX

Ohlins Shocks get set up with Öhlins Shock Absorber Fluid No. 309 (#01306-01) (13.7 cSt@40) Penske Shocks get set up with Silkolene Pro RSF (5wt) (26.7 cSt@40)