



THE EXTRA 10

What is the "Extra 10"?

Every multigrade engine oil has two numbers quoted in its SAE viscosity rating. A "W" for start up viscosity and a second number for operating temperature. For example SAE 15W-40.

If we hold the first "W" number constant, (so that the viscosity is the same at a given start up temperature) then the higher the second number, the slower the oil thins out as temperature increases. So, a SAE 15W-50 oil will thin out slower than a SAE 15W-40 (oil always gets thinner as temperature increases, it is only the rate of thinning out that changes).

Most engines today are manufactured and developed overseas where allowances for lower ambient start up temperatures have to be made and will not necessarily see extended periods of very high temperatures. If a manufacturer requires a SAE 5W-30 in those conditions, we say in Australia and New Zealand, that a SAE 5W-40 is more appropriate. Why? Because the oil film is a little thicker and hence that helps protect against wear of moving parts at operating temperatures. Penrite has moved the second number up one viscosity grade in its premium engine oils and that is what we call the Extra 10. SAE 5W-30 becomes SAE 5W-40, SAE 10W-40 becomes SAE 10W-50 and so on.

The graph below shows some SAE 20W- examples of what happens when you move the second number up by one grade (which happens to be "10"). At -15°C these oils will flow at the same rate, but at higher engine operating temperatures, the oil with the higher second number will provide better protection against wear. (green = 20W-40, red = 20W-50, purple = 20W-60)

