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## SILICONE HOSES

What is a silicone hose and what does it do? Silicone is an inorganic polymer comprising of Carbon, Hydrogen and Oxygen. Silicone hoses have a number of advantages over conventional rubber hoses such as a much higher temperature range, they won't harden and crack with age and heat cycling and they can be manufactured in different colours along with the advantage of being able to cope with higher pressures and working temperatures.

- **2. Are they all the same?** All Silicone hoses are not equal and SamcoSport pride themselves on manufacturing their hoses in the UK for over two decades and on being the first original brand of high-performance Silicone aftermarket hoses, we've always maintained our testing and development with the worlds best race teams & professionals. Some hoses just offer a cosmetic finish to engine bays but often fail once put under pressure.
- **3.** What are they made of (describe the layering process etc and how they are made)? The entire range of SamcoSport hoses are manufactured using only the highest quality European automotive silicones and fabrics which are then compounded in-house to produce varying thicknesses of fabric reinforced silicone sheet used in the construction process of each hose.

The wall thickness is determined by the diameter and application of the hose being manufactured starting with a liner to prevent leaks being the first stage of every build followed by multiple layers of fabric reinforced silicones for strength and durability.

- **4.** How do aftermarket hoses differ to OEM ones (rubber vs silicone, construction, strength, resistance to heat and corrosion etc)? OEM hoses are widely manufactured using EPDM rubber which is cheaper and easier to produce than Silicone but is also significantly inferior with a maximum temperature range of (130°c) over that of a Silicone hose that can cope with much higher temperatures (250°c) and pressures due to the multi layered reinforced silicone fabrics.
- 5. Why, or when, would you need to upgrade your hoses? (higher pressure from more boost, higher temps etc or just as your car ages or even simply as a preventative measure to ensure reliability) OEM rubber hoses should be inspected routinely due to the risks associated through heat cycling, cracking or even stress from increased boost pressure or increased coolant temperatures. Should boost pressures be increased through re-mapping an engine then upgrading to Silicone hoses will certainly lower the chances of a potential catastrophic failure.
- **6.** How important is it to get the right type of hoses? (specifically designed to fit etc so less likely to leak or burst etc look for quality construction etc) It is very important to choose a good quality hose that has been engineered with the correct materials to enable it to deliver and exceed OEM requirements. If the hoses are not the correct diameter this can cause the hose to slip off the mating part when pressurised or if too small can tear the fabric inside the hose leading to a premature failure. It's also important that the hose is the correct shape to avoid contact with other components or moving parts. We do a test fit of all of our new releases to ensure 100% correct fitment.
- 7. What causes factory hoses to fail, or not be suitable for the task? Do aftermarket hoses suffer the same fate? (degredation, burst strength etc, rubber perishing) One of the main causes of failure of factory hoses is oil degradation. Although both silicone and rubber hoses are prone to swelling when exposed to oil or oil mist from breather systems, Silicone has the better resistance to oil and SamcoSport offers a range of hoses with a Flurosilicone inner liner to prevent the oil from affecting the core silicone of the hose.
- 8. What other mods should you consider when uprating your hoses? (Clamps, things like thermostat if getting old maybe? Coolant?) After extensive testing of clamps, SamcoSport recommend using a marine grade stainless steel hose clamp which should have a smooth band with rounded edges and not have exposed drive slots.

Exposed drive slot clamps should always be avoided with silicone as they allow it to be squeezed through when the clamp is being tightened and then tear the outer layers of silicone and fabric which can then lead to a premature failure of the hose and invalidate the SamcoSport lifetime warranty\*

We also recommend using a good quality antifreeze such as an ethylene glycol in a 50/50 water mix. Checking the condition of the thermostat and pressure cap is also advisable on older vehicles if you are overhauling the cooling system.

- **9. Are there any downsides to uprated hoses?** There are no downsides to using up-rated hose apart from making your mind up on the colour due to the vast range of colours that SamcoSport offer their hoses in (21 different colours to choose from)
- 10. Other than ensuring you get the right one for your application, what are the most important things to look out for when buying an uprated hoses? (think, brand backup, design, R&D, has it been tested, warranty, reputable company, motorsport heritage, price etc) You should always ensure that you look for a reputable SamcoSport distributor and these are listed on our website or just drop us a line and we will be happy to point you in the right direction.

Be very careful buying SamcoSport products from auction sites listing the shipping address as Asia, these can be counterfeit with no guarantee or technical backup!

Look for the brand that is tried, tested and trusted by the world's best manufacturers and race teams and always fit Samco Sport.



