

sura*Sil*TM

Silicone
Engineering Ltd

suraSil™ ensures dimension accuracy and stability, as well as increased tool efficiencies.

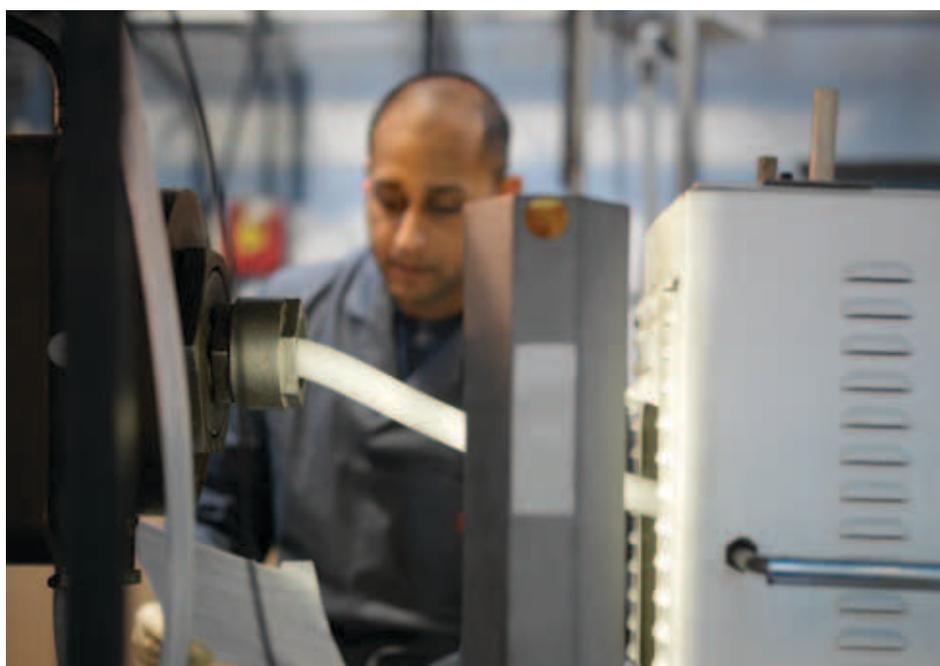
Our suraSil™ range of solid extrusion and moulding grades is specifically formulated to process through our extrusion lines and moulding presses.

We mix all suraSil™ grades in-house, so our extrusion products perform to the highest quality standards and meet a wide range of customer specifications and requirements. Using our state-of-the-art laboratory and mixing facilities in-house, we rigorously test each batch before production, and can adjust formulations to meet your unique needs.

We have large stocks of all formulation ingredients, so we're not restricted by compound supply issues or long lead times. And we can kit, mix and issue compounds to production within hours, not weeks. This means you benefit from a quick turnaround – even if you have very specific requirements.

suraSil™ GP materials offer all the resilience and versatility of silicone rubber, and are ideal for industries where adverse temperatures are an issue – or where an inert, robust polymer is required. They also comply with a range of industry standards, such as those of the Food and Drug Administration (FDA), and the Water Regulations Advisory Scheme (WRAS).

The suraSil™ range is available in A-scale shore hardness of 40 to 70 for extrusions, and as low as 10 for moulding processes. It is available in white, red (Riox), black and translucent, and we offer a colour-matching service for special requirements.



In addition to the suraSil™ GP range, we offer specialist products for more demanding or unusual environments. Over 50 years, we have continuously developed, refined and improved an impressive range of silicone formulations to comply with new legislation and specifications, and to meet ever-changing customer needs.

If you don't see a suraSil™ product here that meets your specific needs, get in touch and tell us more. We can arrange a site visit to discuss your requirements, develop samples and quickly provide a rigorously tested, industry-compliant product that matches them.

[Here are some of the most popular specialist suraSil grades:](#)

- suraSil™ FR** flame retardant and self-extinguishing
- suraSil™ THT** for higher temperature resistance
- suraSil™ LCH** low smoke and low toxicity silicone, developed for public safety
- suraSil™ HT** high-tear material for more demanding environments

Wide-ranging Applications

suraSil™ extruded products are suitable for a wide range of uses, and we provide them for many different industries and markets. Extruded profiles and sections are often used in manufacturing seals and gaskets where intricate orifices, profiles and frames require a perfect fit, such as with oven door gaskets, street lighting seals and rail interiors.

suraSil™ has many other applications when extruded as tubing. It is inert and robust, and FDA compliant, so it is often used for milk tubing, vending machines and many insulation applications that benefit from a silicone polymer's specialised properties. We also manufacture fully fabricated products, including jointed rings, mitred or moulded corner seals, and using our two Hawkes presses we can produce punched gaskets and washers to meet high-volume requirements.

The suraSil™ range covers almost every specialist extrusion and moulding requirement. And with our years of experience, detailed knowledge and comprehensive in-house resources, you can be sure of the highest standards of quality, reliability and service.



Product Availability



Formulations

Products

Solid Silicone (suraSil™)

	Extrusions	Tubing	Gaskets	Cables	Moulding
GP – General Purpose	●	●	●		●
HT – High Tear	●	●	●	●	●
FR – Flame Retardant	●	●	●	●	●
THT – High Temperature	●	●	●	●	●
DS – Dairy		●			●
LCH – Low Smoke & Toxicity	●	●	●	●	●
GPC – Cable Insulation				●	
FS – Fluorosilicone	●	●	●		●

Special Grades

metectSil™	●	●	●		●
neutraSil™	●	●	●	●	●
reactaSil™	●	●	●	●	●

Just to put the scale of our suraSil™ compounding, extrusion and moulding manufacturing facilities into perspective take a look at the summarised asset inventory of machinery used in the production of these products.

Our onsite mixing facility consist of

- Banbury Mixer ●
- Winkworth Mixers ●●●
- Mixing Mills ●●●
- Barwell Pre-Formers ●●

Fabrication cell consist of

- Clicking Press ●
- Jointing Machine ●●●●●●
- Heat Applied Roller Unit ●
- Autogill Cutting Machine ●●
- Corner Moulding Press ●●●●
- Heavy Duty Hawkes Punching Presses ●●
- Fixed Polish Machine ●
- Optical Testing Machine ●
- Manual Cut & Clip Assembly Station ●

● = Number of Assets

Solid extrusion lines consist of

- Compound Extruder ●●●●
- Pre-Cure Systems ●●●●
- Post-Cure Ovens ●●
- Optical Measuring Unit ●

Our moulding facilities consist of

- Moulding Press ●●●●●●
- Post-Cure Ovens ●●●
- Roller Press ●
- Compound Extruder ●
- Hand Operated Extruder ●●

Dedicated dairy tubing lines

- Compound Extruders ●●
- Pre-Cure Systems ●●
- Fast Cure System ●
- Print Machine ●
- Caterpillar Measuring Unit ●

Image Right

Extrusion with online printing





Expertise for all sectors and industries

Silicone Engineering has designed and manufactured over 2,000 products and materials to address a wide range of issues – for many customers, across many sectors and industries. We also have our own test laboratories, with the latest technology and equipment, which support the many innovative products and services we provide.

Extensive in-house capabilities

Because we design and test our own products, our customers have added faith in our processes and services. In other words, our focus on research and development means our customers know what we provide will meet their needs. Our in-house testing procedures include:

- rheology: the study of how liquids and 'soft solids' flow
- physical behaviour under stress and fatigue
- fatigue through exposure to extremes of temperature
- fire rating
- toxicology
- spectrum control
- density, hardness and volume evaluations

As an example of how we use our testing facilities, we can assess compounding material from 1kg laboratory trials up to 2,000kg production mixes, produced in one of our 'D' chamber mixers or one of our five 'Z' blade mixers. Or we can mill-mix batches from one of our six mills. We test each mix for quality control conformance and shore hardness verification, so every batch we provide meets the highest standards and defined specifications.

Image Right

Expertly hand made products





[Support for planning and compliance](#)

Once compound materials are approved, they are logged on our enterprise resource planning (ERP) system, to help with compliance management and planning control. We then process them on our calender sheeting or extrusion lines in accordance with ISO9001:2008 quality management processes.

We monitor, process and batch-test vulcanised materials to our own strict international standards for tensile strength, stress strain, tear strength, elongation, heat age conditioning and compression. And on request, we can send documented test results for each batch of vulcanised materials we deliver. Our delivery lead times are world-class.

[Continuous development and improvement](#)

Our significant investment in technology and equipment for research, development and production means we can quickly and effectively meet a wide range of requirements. With some of the best-equipped testing and manufacturing facilities in the industry, we can design, manufacture and verify the most suitable silicone products for almost any application. This also means we can continually look at ways to improve our products and services, and offer unrivalled after-sales support.

The latest innovations

At Silicone Engineering, we always aim to be at the forefront of silicone technology innovation. This is the only way we can be sure to keep providing you with the products that meet your specific needs – whatever industry you're in, and no matter how rapidly it's changing. Using more than 50 years' experience, and with unrivalled technical resources, we'll work with you, closely and confidentially, to develop cost-effective solutions to any silicone challenge.

[In the laboratory](#)

With one of the best-equipped laboratories in the industry, we can develop and introduce new materials to very tight deadlines. But that doesn't mean cutting corners: we formulate, test and certify all our material developments to the relevant standards before going to market. Using our comprehensive mixing and compounding facilities, we currently process more than 1,200 tonnes of silicone each year, and maintain full quality control and material integrity at every stage.

[More than materials](#)

Innovative materials often need new processing methods to ensure their properties are maintained, or even enhanced, when they're used in manufacturing. So our creative approach doesn't stop once we've developed a new material: we also use our manufacturing expertise to prototype, refine and keep improving the processes in which our materials are used. This means continually investing in equipment – to ensure your new products give you the performance you need, at the right price.

On a mission to innovate

Many businesses claim to be innovative – but for us, it's a matter of survival.

To keep our customers coming back to us, we have to keep developing new ways of using silicone. So innovation is central to our business.

Silicone Engineering Ltd.

Greenbank Business Park
Blakewater Road
Blackburn
Lancashire BB1 3HU
T. +44 (0)1254 261 321
F. +44 (0)1254 583 519

www.silicone.co.uk
sales@silicone.co.uk