

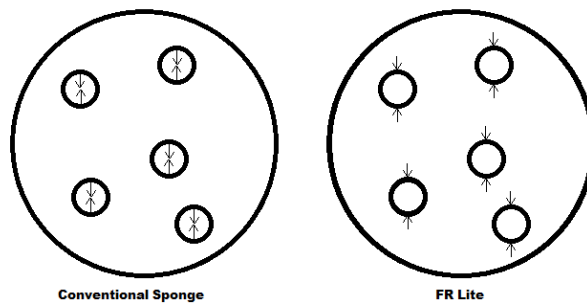


Equivalent performance, 25% less weight

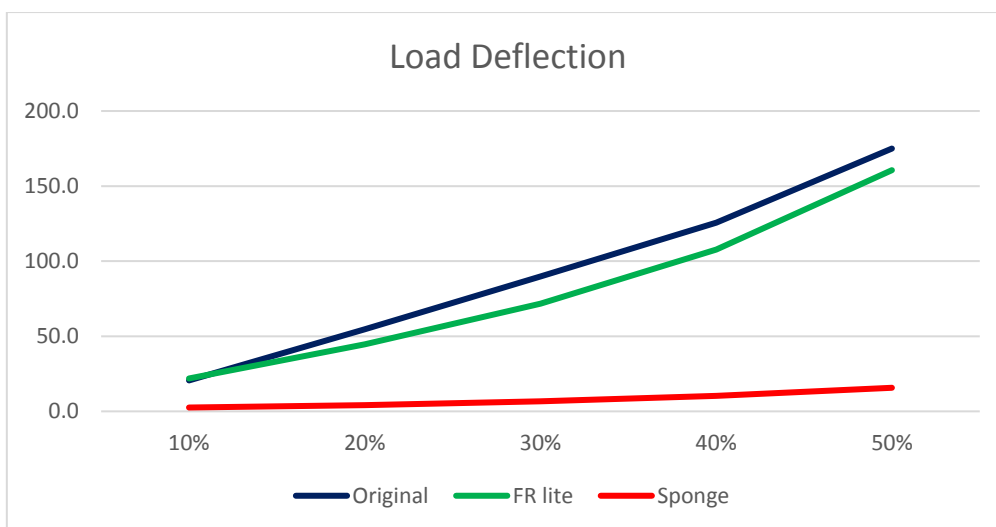
With the ever-increasing focus on fuel consumption and therefore weight reduction, we have responded to industry demand by developing a new, lighter silicone material which retains the performance levels of existing high-specification fire retardant solid silicones.

FRlite™ is an innovative silicone that uses novel compositions and syntactic technology to reduce part weight by an unprecedented 25%. The material is laboratory tested, with validation to the most relevant industry specifications (CS/JAR/FAR). Using existing manufacturing technology, we can supply light weight versions of seals, grommets, arm rests, gaskets and washers as well as bespoke rubber mouldings.

Unlike closed cell porous sponge materials, this material utilises a self-reinforcing porous structure to reduce the density, without compromising on the characteristics of solid rubber. The porous structure resists collapse, so load is transferred through the bulk of the elastomeric material as with conventional solid rubber.



This lighter material retains the load-deflection and compression characteristics of solid rubber, this gives the opportunity to utilise shape factor for engineering solutions.



- Equivalent performance, 25% less weight
 - Retains properties of standard solid silicone
 - 25% reduction in part weight
- Laboratory tested to industry specifications on flame retardancy, such as CS/JAR/FAR

Rheology		
		70 Shore A
	Units	Value
Min	dNm	1.41
Max	dNm	21.87
T05	Mins	0.28
T50	Mins	0.45
T90	Mins	0.94

Basic Properties	Unit	Value
Hardness	IRHD	68
T.S.	MPa	2.3
E@B	%	466
Density	g/cm ³	0.89
Tear Strength	N/mm	15
Compression Set 24 hrs @ 150°C		
Set	%	28
Compression Set 70 hrs @ 150°C		
Set	%	39
Fluid Resistance 168 hrs @ 100°C Liquid 101		
H. Change	IRHD	-20
T.S. Change	%	-22
E@B Change	%	-9
Vol. Change	%	+12

Properties of standard 70 Shore A silicone compound:

		Difference
Shore hardness:	68° +/- 5°	0%
SG	1.28 g/cm ³	-31%
Elongation at break:	270%	+70%
Tensile strength:	9 N/mm	-74%
Tear strength:	15 N/mm	-0%
Compression set:	27%	+4%