

J-FLEX MATERIAL DATA SHEET

MICRASIL®

Antimicrobial Silicone Rubber

MicraSil®	The pro-active Antimicrobial Silicone Rubber from J-Flex, providing protection against contamination from bacterium; fungi & algae.
PROBLEM:	The growth of bacteria, fungi and algae on and around rubber seals, gaskets and sheets – forms a substantial threat in food safety. In addition the growth of microbes on rubber surfaces can lead to foul odours, discolouration and the formation of mildew and slime – leading to surface degradation that will significantly reduce component lifespan.
SOLUTION:	MicraSil® Silicone Rubber which offers microbial protection is a must in the medical, pharmaceutical, food and beverage process industry.
SO HOW DOES IT WORK?	
<ul style="list-style-type: none">• The bacteria or microbes make contact with the rubber part.• The bacteria absorb the free silver ions on the surface of the rubber.• The silver ions destroy the bacteria / microbes by breaking down their cell walls.• The silver ions inhibit the growth of any micro-organisms and deter it from contaminating or colonising its surface.	
ADVANTAGES OF MICRASIL®:	
<ul style="list-style-type: none">• The free silver ions on the outside of the rubber remain active even after several washes.• The silver ions are released in areas that are hard or impossible to access with cleaning detergents (e.g. hairline cracks in the seal or gasket) – whereby bacterial growth is suppressed.• Reduced downtime, lost production and maintenance costs.• MicraSil® additive has been approved by:- FDA; EPA & EFSA.• Has no taste + no smell + non-toxic + non leaching + non corrosive• Temperature Resistance : Up to 200°C• Independently tested and found to destroy on contact – MRSA, E-coli, Salmonella, Campylobacter, etc.• Independently tested the additive is mixed at the time of manufacture and lasts for the usefulness life of the product. As it is not solely applied to the surface, performance is not affected by scratches; bumps or general wear and tear.• MicraSil® can be supplied as gaskets; sheets; seals; extruded sections – in short anything that can be moulded, extruded or calendered.	

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MicraSil® is a Registered Trademark of J-Flex Rubber Products



J-FLEX RUBBER PRODUCTS
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MICRASIL[®] ANTIMICROBIAL SILICONE RUBBER 60° SHORE 'A'

COLOUR : YELLOW OR BLUE

PROPERTY	TEST METHOD	UNITS	SPECIFICATION LIMITS	TYPICAL VALUE
HARDNESS	ASTM D2240 DIN 7619-1	°SHORE A	60° (+/-5)	62
TENSILE STRENGTH	ISO 37 type 1 DIN 53504 type S1 ASTM D412 Die C	MPa psi	7.0 min 1015 min	7.9 1146
ELONGATION @ BREAK	ISO 37 type 1 ASTM D412 die C DIN 53504 type S1	%	280 min	340
TEAR STRENGTH	ASTM D624 die B	N/mm lb/in	12.5 min 71.4 min	14.2 90.3
COMPRESSION SET 24hrs @ 150°C	BS 903 pt A6 type B DIN/ISO 815 type B	%	30 max	13
22hrs @ 300°F	ASTM D395 method B type 2	%	30 max	10
THERMAL CONDUCTIVITY	VDE 0304		0.24 W.m ⁻¹ .K ⁻¹	
TEMPERATURE RANGE	-60°C to +230°C (Continuous)		+250°C (Intermittent)	

These sheetings are fully post cured and the ingredients used are listed in FDA 21 CFR 177. 2600. Our FDA materials are manufactured in accordance with FDA guidelines set out in 21 CFR 177.2600 which makes them suitable for contact with dry, aqueous and fatty foods defined by the FDA. As stated in 21 CFR 177.2600 it is recommended that the manufactured article is thoroughly cleansed prior to first use in contact with food. This product is also in compliance with BfR XV Empfehlung part B 11, Directive EC 1935/2004 & JIS Z 280:2000. Flammability – meets the requirements of FAR 25/JAR 25/CS 25 Appendix F, Part 1, (a)(1)(iv) & (a)(1)(v) horizontal flammability tests & Automotive Standard PART 571FMVSS302.

WRAS APPROVAL NO: 1310541:-

Approved for cold & hot potable water use up to 85°C in accordance to BS 6920.

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