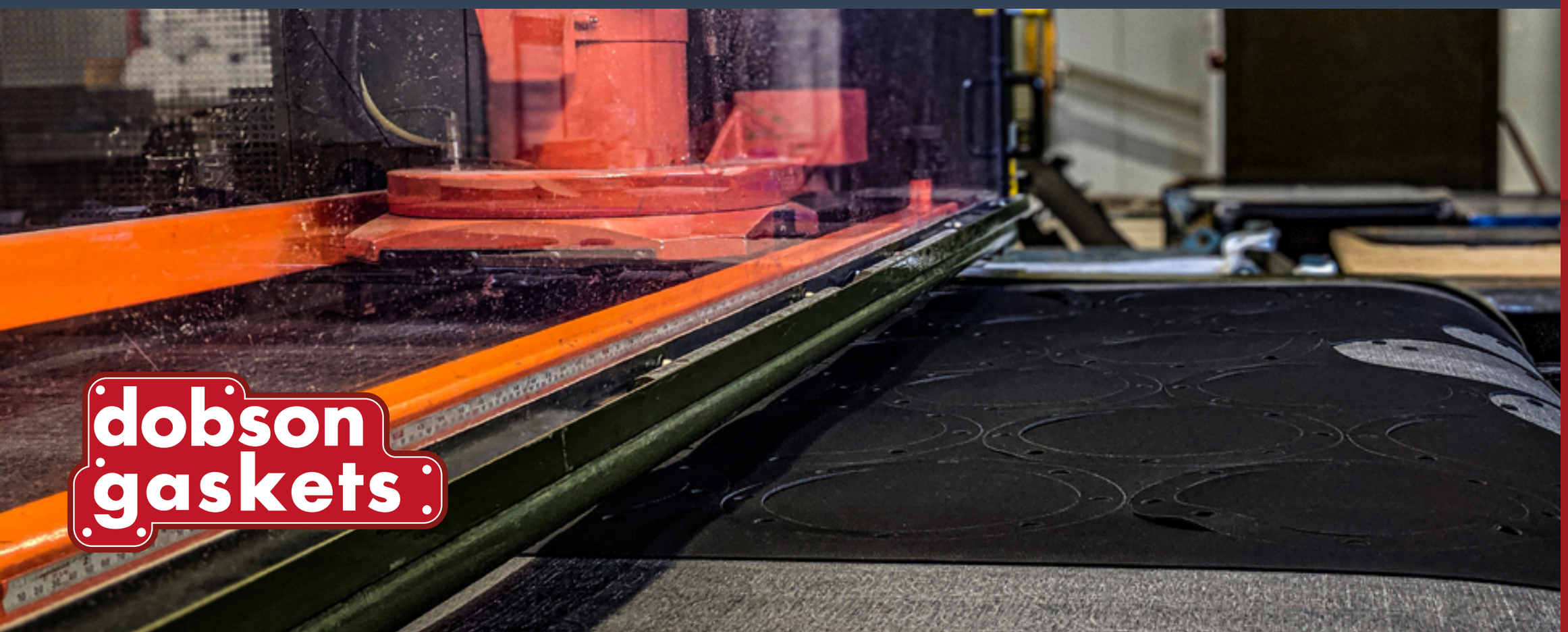
dobson gaskets

A QUICK GUIDE TO AUTOMOTIVE FUEL SYSTEM GASKETS

OVERVIEW

In automotive fuel system design, gasket material selection plays a critical role in ensuring long-term sealing performance under chemical and thermal stress.

Gaskets used in contact with automotive fuels and additives must demonstrate high chemical compatibility, thermal resistance, and mechanical integrity.



PHYSICAL PROPERTIES

MATERIAL	TEMPERATURE RANCE (°C)	FUEL CHEMICAL RESISTANCE
Nitrile Rubber (NBR)	-30°C to +120°C	Excellent resistance to petrol, diesel, and motor oils
Viton® (FKM)	-20°C to +200°C	Outstanding resistance to petrol, diesel, ethanol blends (E10–E85), and additives
NBR-Bonded Cork	-20°C to +120°C	Good resistance to fuels when bonded with NBR
Aramid Fibre with NBR Binder	-30°C to +250°C	Good resistance to fuels, oils, and coolants
PTFE (Teflon®)	-200°C to +260°C	Excellent resistance to petrol, diesel, ethanol, and additives
Non-Asbestos Fibre (NAF)	-30°C to +250°C	Good resistance to fuels and oils

dobson gaskets

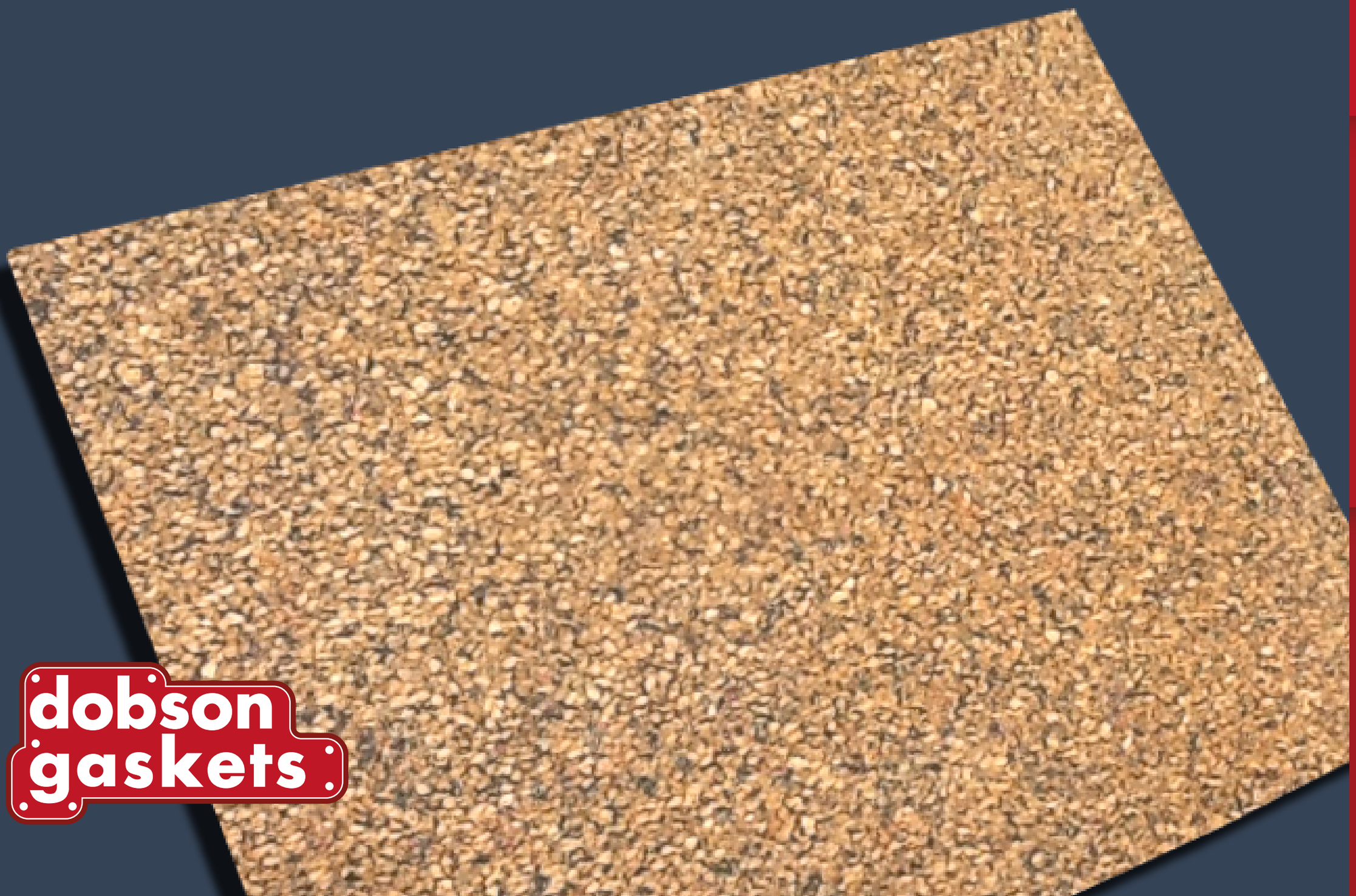
NITRILE (NBR)

- Best all-round choice for automotive fuel systems
- Excellent resistance to petrol, diesel, and oil
- Common in fuel pumps, carburettors, and fuel line seals

dobson gaskets

NBR-BONDED CORK

- Traditional material for older vehicles and classic cars
- Compressible, conformable, and bonded with NBR for fuel resistance
- Common in tank seals, carburettor gaskets, and low-pressure systems.



dobson gaskets

VITON® (FKM)

- Ideal for modern engines using ethanol-blended fuels (E10, E85)
- Superior resistance to heat and aggressive fuel additives
- Often used in fuel injector seals, O-rings, and advanced gaskets

dobson gaskets

ARAMID FIBRE + NBR BINDER

- High mechanical strength and fuel resistance
- Frequently used in fuel flange gaskets and manifold applications
- Suitable for internal combustion engines and under-hood environments

dobson gaskets

PTFE (TEFLON®)

- Used in high-performance or aftermarket applications
- Chemically inert and fuel-resistant, with low friction properties
- Ideal for fuel injector spacers or as sealing layers in composite gaskets

dobson gaskets

NON-ASBESTOS FIBRE (NAF)

- Safer alternative to asbestos with good fuel compatibility
- Used in older engine designs and in aftermarket gasket kits

dobson gaskets

dobson gaskets

NEED ADVICE ABOUT AUTOMOTIVE FUEL SYSTEM GASKETS?

TALK TO OUR TEAM

(+44) 01535 607257
sales@dobsongasket.com
www.dobsongasket.com