

# STASSKOL



## SK 303

Sealing material for dry Air  
in dry-running applications

SK303 is a sealing material based on Polytetrafluorethylene (PTFE) and it is widely used at dry-running compressor services. Typical applications are the compression of Air for PET applications, Air supply systems for production areas and bottling of Air. An optimized content of fillers and lubricants within the PTFE matrix ensures high service life-times and increased mechanical properties, while keeping an outstanding chemical resistance.

## TRIBOLOGICAL PROPERTIES

The tribological properties are defining the wear behavior of the material. The wear rate (k) and friction coefficient ( $\mu$ ) of SK303 are identified by tribological characterization.

Under Air	
Wear rate:	$k = 2.8 \cdot 10^{-7} \text{ mm}^3/\text{Nm}$
Friction coefficient:	$\mu = 0.29$

The following conditions were applied during the test of SK303:

Gas:	Air
Average velocity:	5.2 m/sec
Pressure:	20 bar
Dew point:	0 °C
Counter surface:	Cast iron GGG30 (EN-GJS-300)
Lubricant:	none

The lower the wear rate, the higher is the wear resistance and the expected service life-time at the field application.

STASSKOL provides state-of-the-art equipment for tribological characterizations under reciprocating and rotating movement. For example, a unique reciprocating tribometer was used to investigate the wear behavior of SK303.



The material performance strongly depends on the test conditions. Therefore, we recommend conducting measurements at the parameters of the customer's application. Please use the characterization and development capabilities of STASSKOL.

## MECHANICAL PROPERTIES

SK303 shows an increased stiffness over SK302 due to the filler concentrations while preserving a very good flexibility of the sealing material. The mechanical properties have been investigated using a tensile testing machine under standard (DIN EN ISO 527-1) conditions.

Elastic modulus:	1,310 MPa
Tensile strength:	21.5 MPa
Elongation at break:	150 %
Density:	2.35 g/cm <sup>3</sup>
Hardness:	66.7 Shore D

## CUSTOMER GUIDELINE

### Operating Conditions:

Dry-running service  
Pressure up to 100 bar  
Temperature up to 150 °C  
Average velocity up to 4.5 m/sec  
Low dew points

### References:

Air compressors  
PET industry  
Supply of compressed Air  
Bottling of Air

Please contact STASSKOL to get additional information about SK303. We are pleased to support you by choosing the best sealing material according to the operating conditions of your application.

STASSKOL Inc.  
19911 Morton Road, Suite 200  
Katy, Texas 77449  
USA

☎ +1-713-244-5050  
✉ info@stasskol.com

STASSKOL GmbH  
Maybachstrasse 2  
39418 Stassfurt  
Germany

☎ +49-3925-288-100  
✉ info@stasskol.de

🌐 www.stasskol.com