



## Polyester-Filled Polytetrafluoroethylene (SP5)

Material Data Sheet  
M-57 (Rev. 00, 05-21-26)

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## Overview

SP5 is a polyester-filled PTFE compound. It exhibits superior heat and wear resistance as compared with Virgin PTFE and graphite-filled compounds. This low friction compound is exceptionally well-suited for rotary service equipment applications. Since SP-5 will not wear metal mating surfaces, it is recommended for low to high speed applications running against soft metals. SP-5 is suggested for use in applications with service temperatures ranging from -320° F to +475° F (-196° C to +246° C).

## Chemical Compatibility

SP5 is compatible with most fluids and gases. For more details, reference Bal Seal Technical Report TR-60A, *Chemical Compatibility Guide*, in the technical library section of our website at [www.balseal.com](http://www.balseal.com).

## FDA Compatible

SP5 is not FDA compliant or compatible. This material contains no ingredients listed in the California Code of Regulations Hazardous Substances List.

## Mechanical Properties

### Typical Mechanical Properties of SP5 at Ambient Temperatures

Property	Standard	Measure
Tensile Strength	ASTM D638	3000 psi (20.7 MPa)
Elongation	ASTM D638	350%

## Color

Light tan to brown (color variations may occur during processing). The supplied parts may contain random specks, which are normal and will not affect the material properties.

## Advantages of SP5

- Suitable for rotary and reciprocating applications, not recommended in aqueous and steam environment
- Low wear rate, high temperature resistance
- Minimal wear to soft metal countersurfaces
- Non-conductive

## Other Resources

For more information, contact a technical sales representative, visit our website at [www.balseal.com](http://www.balseal.com), or e-mail us at [sales@balseal.com](mailto:sales@balseal.com).

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