

Vespel Material Selector Guide

| Grade | Typical Application | Material Composition | Key attributes |
|-------|---|--|---|
| SP1 | Mechanical, electrical parts for high temperature, seats, seals, insulators | Unfilled resin | High strength, elongation, lowest modulus and thermal conductivity, optimum electrical properties |
| SP21 | Lubricated or non lubricated, low friction and wear applications; seats, seals, bearings. | 15% Graphite filled | Improved wear resistance, enhanced long term thermal stability |
| SP22 | Lowest thermal expansion requirement, bearings. | 40% Graphite filled | Maximum creep resistance, lowest coefficient of thermal expansion |
| SP211 | Low friction and wear in moderate temperature environments, bearings. | 15% Graphite &15% PTFE filled | Lowest static friction. |
| SP3 | Friction and wear applications in vacuum or inert gases, bearings, piston rings, seals | 15% MOS2 filled | Improved wear performance in dry environments |
| SP221 | Low wear in "non lube" conditions, suitable for use with soft metals, bearings | 40% Graphite & 15% PTFE filled | Lowest wear rate, against soft metals, bronze, aluminium, in dry service |
| SP262 | Bushings for low thermal expansion and low coefficient of friction requirements | 57% Graphite & 5% Carbon fibre filled | High thermal conductivity, low coefficient of thermal expansion. |

Issued January 2025 AFT Fluorotec Technical Department
All information is based on typical test results performed under specific conditions and limited sample size. This does not represent a legally binding guarantee of certain properties or the suitability for specific applications. All information is provided in good faith at time of print.

AFT Fluorotec

Solutions and components in Fluoropolymer Plastics

Phone: +44 (0) 1992 515880 Email: info@fluorotec.com Website: www.fluorotec.com