

## List of abbreviations/symbols

### List of abbreviations

AN	Acrylonitrile
C/C	Carbon fibre reinforced carbon matrix composite
C/C-SiC	Carbon fibre reinforced carbon-silicon carbide matrix composite
CFRP	Carbon fibre reinforced polymer
CMCs	Ceramic matrix composites
CNFs	Carbon nanofibers
CVD	Chemical vapour deposition
CVI	Chemical vapour infiltration
LPI	Liquid polymer infiltration
LSI	Liquid silicon infiltration
MI	Melt infiltration
MMCs	Metal matrix composites
OM	Optical microscopy
PAN	Polyacrylonitrile
PIP	Polymer infiltration and pyrolysis
PMCs	Polymer matrix composites
PyC	PyroCarbon
RTM	Resin transfer moulding

## List of Symbols

$A_f$ and $A_m$	Area of one fibre bundle and the matrix, respectively
$A_{fo}$	Maximum area of fibre that can come in contact with the counterface.
$\chi_f$	Interaction area parameter
$d_f$	Diameter of a fibre bundle
$E$	Elastic Modulus
$\epsilon_f$ and $\epsilon_m$	Strains in fibre and matrix, respectively
$F$	Friction force
$F_f$ and $F_m$	Friction force due to fibres and matrix, respectively
$l_f$	Length of one fibre bundle
$L_f$	Total length of fibres in contact
$\mu$	Friction coefficient
$P$	Load applied on the composite
$\sigma_f$ and $\sigma_m$	Stress in the fibre and matrix, respectively
$V_f$	Volume fraction of fibres