

Report 192

ISSN: 0889-3144

Polymers in Aerospace Applications

Joel R. Fried

Volume 16, Number 12

*Expert overviews covering the
science and technology of rubber
and plastics*

rapra
TECHNOLOGY

Rapra Review Reports

Contents

1. Introduction.....	3
2. Adhesives	3
3. Coatings	3
4. Fibres.....	3
4.1 Fibre Types	3
4.1.1 Carbon-Based Fibres.....	3
4.1.2 Inorganic Fibres	4
4.1.3 Polymeric Fibres	5
4.1.4 Hybrid Fibres	6
4.2 Fibre Forms	6
4.3 Interfacial Properties	6
4.3.1 Coupling Agents	6
4.3.2 Surface Treatment	7
5. Composites.....	7
5.1 Matrix Polymers.....	7
5.1.1 Thermosetting Matrices	8
5.1.2 TP Matrices	10
5.2 Fabrication Methods	12
5.3 Non-destructive Testing.....	12
6. Nanocomposites	13
6.1 Nano-Reinforcements	13
6.2 Processing	15
6.3 Properties of Nanocomposites.....	15
7. Foams	16
References.....	16
Abbreviations.....	16
Abstracts	19
Index	131