

Gelcoat Quality Guide

A guide to application
faults and possible
causes



Common faults in gelcoat

Colour Tearing



- Pigment separated from resin
- Improper spray technique
- Long geltime, sagging

Colour Separation



- Insufficient mixing
- Sagging, drainage
- Poor gelcoat application

Colour Mottling



- Gelcoat low in thixotropy
- Poor pigment compatibility
- Viscosity too low

Parallel Cracks



- Flex cracking
- Gelcoat too thick
- Laminate too thin/flexible

Star Cracking



- Reverse impact
- Gelcoat too thick
- Crack pattern transferred from mould

Crazing



- Chemical attack
- Excessive heat
- Contamination

Blisters in Laminates



- Water ingress
- Damp reinforcement
- Air voids

Gelcoat Blisters



- Air voids on release
- Unreacted catalyst
- Solvent contamination

Fibre Pattern



- Gelcoat too thin
- High exotherm in laminate
- Insufficient cure, released too soon

Scott Bader has the answers

Colour Specks



- Poorly ground/mixed pigments
- Contamination
- Poorly maintained equipment

Porosity



- Gelcoat too viscous to release air
- Cold gelcoat and/or mould
- Gelled too quickly, entrapping air

'Water Marking' Etching on Mould



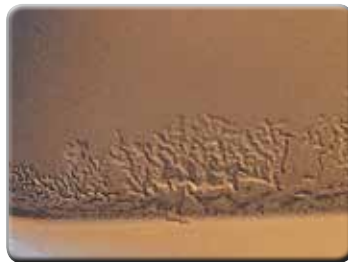
- Areas of thin, double gelcoating on mould
- Two colours gelcoated on mould
- Solvent attack

Dimpling



- Too heavy wet-on wet spray application
- Insufficient consolidation
- Contamination

Wrinkling



- Insufficient cure
- Gelcoat too thin
- Back-up too rapid

Sagging



- Gelcoat too thick
- Gelttime too long
- Viscosity/thixotropy too low

Gelcoat Peeling



- Contamination
- Gelcoat too fully cured
- Gelttime too long - release wax dissolved

De-wetting (Brush)



- Brush gelcoat applied too thinly
- Incompatible release system
- Contamination

De-wetting (Spray)



- Spray gelcoat applied too thinly
- Incompatible release system
- Contamination

Scott Bader Group Companies

HEAD OFFICE

Scott Bader Company Limited

Wollaston
England
Tel: +44 1933 663100
Fax: +44 1933 666139
email: enquiries@scottbader.com

Scott Bader France

Amiens
France
Tel: +33 3 22 66 27 66
Fax: +33 3 22 66 27 80
email: info_distribution@scottbader.fr

Scott Bader Spain

Barcelona
Spain
Tel: +34 93 553 1162
Fax: +34 93 553 1163
email: diazs@scottbader.es

Scott Bader Germany

Weiden
Germany
Tel: +49 961 401 84474
Fax: +49 961 401 84476
email: composites@scottbader.de

Scott Bader Ireland

Dublin
Ireland
Tel: +353 1801 5656
Fax: +353 1801 5657
email: composites@scottbader.ie

Scott Bader Scandinavia AB

Falkenberg
Sweden
Tel: +46 346 10100
Fax: +46 346 59226
email: composites@scottbader.se

Scott Bader Eastern Europe

Liberec
Czech Republic
Tel: +420 485 228 344
Fax: +420 485 228 345
email: composites@scottbader.cz

Scott Bader Croatia

Zagreb
Croatia
Tel: +385 1 240 6440
Fax: +385 1 240 4573
email: info@scottbader.hr

Scott Bader USA

Stow, OH
USA
Tel: +1 330 920 4410
Fax: +1 330 920 4415
email: info@scottbaderinc.com

Scott Bader-ATC

Drummondville
Canada
Tel: +1 819 477 1752
Fax: +1 905 681 1535
email: sales@scottbader-atc.com

Scott Bader South Africa

Hammarsdale
South Africa
Tel: +27 31 736 8500
Fax: +27 31 736 8511
email: composites@scottbader.co.za

Scott Bader Middle East Limited

Dubai
United Arab Emirates
Tel: +971 481 50222
Fax: +971 488 35319
email: info@scottbader.ae

Abahsain Scott Bader LLC

Jebel Ali
United Arab Emirates
Tel: +971 481 50 222
email: info@scottbader.ae

Scott Bader Asia Pacific

Shanghai
China
Tel: +86 (21) 5298 7778
Fax: +86 (21) 5298 8889
email: info@scottbader.cn

Satyen Scott Bader Pvt. Ltd

Mumbai
India
Tel: +91 22 4220 1555
Fax: +91 22 2491 1262
email: info@satyenpolymers.com

NovaScott Especialidades Químicas Ltda

Civit II, Serra, ES 29165-973
Brazil
Tel: +55 27 3298-1100
email: info@novascott.com.br



www.scottbader.com

Leading composites innovation for over 60 years

For more information on Scott Bader products, visit our website

All information correct at time of printing.



GELCOAT QUALITY GUIDE 3/14 ISSUE 5

