

Subject Index

A

Accelerated
 ageing, 66, 81
 testing, 51, 197
 Acrylic sealants, 22
 Adherence, 251
 Adhesion
 performance, 107
 properties of sealants, 169, 243
 tensile, 169
 tests, 98
 Air infiltration, 94
 Aluminum, 107
 Artificial weathering, 81
 ASTM standards, 169, 288
 C 24, 169
 C 784-80, 107
 C 794-80, 107
 C 834, 22
 C 920, 22
 C 1248, 197, 210
 C 1382, 169

B

Band-aid joint, 115, 129, 157
 Birds, effect on sealants, 94
 Bituminous
 membranes, 251
 waterproofing systems, 251
 Blister, 251
 Boot, 142
 Bridge deck, 251
 Bridge sealant joint, 115, 129
 Bridge seals
 cast-in-place, 115
 pre-cured silicone, 115
 hybrid methods, 115
 Building roof sealants, 179
 Building seals, 288

C

Cantilever slab stiffness, 98

Chemical spectroscopy, 66
 Compatibility, sealants, 179
 Compression molding, 115
 Concrete core sampling, 98
 Concrete substrates, 210
 Concrete surface crack
 mapping, 98
 Containment of spills
 primary, 277
 secondary, 277
 Curtain wall, 142, 157
 Cyclic
 fatigue, 1
 fatigue testing, 43, 51
 movement, 66

D

Dual durometer systems, 219
 Durability, 81
 exterior, 22, 169, 243
 laboratory, 22

E

EIFS (Exterior Insulation and Finish Systems), 22, 129, 169
 Elastomeric sealants, 66, 219
 Exterior Insulation and Finish Systems (EIFS), 22, 129, 169
 Extremal analysis, 1
 Extrusion, 142

F

Failure mode, 107
 Fatigue
 cyclic, 1
 cyclic testing, 43, 51
 shear, 43
 Finite element analysis (FEA), 219, 229
 Fireproofing, 268
 Fire retardant, 268
 Firestop, 268

312 BUILDING SEALS, SEALANTS, GLAZING AND WATERPROOFING

Floor deflections, 98
Fluid migration, 210
Free films, 66

G

Gaskets, 129
Glazing
 design, 243
 joint geometry, 243
 seal, 219
Granite substrates, 210
Gumbel probability plot, 1

H

Heat-cured extruded silicone, 115

I

Injection molding, 157
International Organization for
 Standardization (ISO)
 11600, 22
Intumescence, 268

J

Joints, 229
 adhesive failure, measuring,
 107
 band-aid, 115, 129, 157
 bridge, 115
 compounds, model, 66
 movement, 22, 81, 129
 openings, bird caused, 94
 splice, 142

L

Limestone substrates, 210
Liquid injection molding, 157
Low slope roofs, 179

M

Maintenance of roof sealants,
 179
Mapping, crack, 98
Marble substrates, 210
Membrane, bituminous, 251
Mini-specimens, 51

Modulus, 107, 169
Molding
 injection, 157
 pressure and heat cured, 157
Movement
 architectural, 288
 building sealant, cyclic, 1, 81
 capabilities, 179, 243
 joint, 22, 81, 129
 shear joint, 43
 structural, 288
 systems, 288
Mullion
 center, 142
 side, 142
Multi-part urethane, 98

N

Natural weathering, 66
Non-linear structural materials,
 229

O

Oil penetration, 197
Overhead glazing, 229

P

Peel test, 107, 251
Peeling measurement, 107
Performance oriented
 thermography, 251
PJS, preformed joint seals, 129
Polymers, 277
Polysulfide sealants, 43, 169,
 277
Polyurethane sealants, 22, 169,
 197
Porous substrate, 197, 210
Preformed sealants, 129, 142,
 157
Pressure-and-heat-cured
 molding, 157
Primary containment, 277
Primer
 bitumen, 251
 epoxy, 251
Probe tests, 98
Pull-off test, 251

Q

Quality assurance, 179

R

Rail, 142
Roof sealants, 179
RTV silicone, 115

S

Sealing bead, 43, 229
Secondary containment, 277
Sensitive substrates, 129
Shear fatigue, 43
Shear test, 251
Silicone preformed joint seals (PJS), 129
Silicone sealants, 98, 169, 229
 acrylic, 22
 adhesive failure, 107
 boots, 142
 cyclic fatigue testing, 51
 durability, 129
 heat-cured extruded, 115
 preformed, 157
 RTV, 115
 stone substrate staining, 197
Skylights, 229, 288
Spaceframes, 288
Spectroscopy, chemical, 66
Spill containment, 277
Splice joint, 142
Splice plate, 115
Stain, 197, 210
Steel reinforcement mapping, 98
Stress strain analysis, 243
Structural silicone, 229
Substrate
 combustibility of, 268
 porous, 197, 210
Surface roughness, 251
Surface-sealed system, 157

T

Temperature behavior, 1
Thermal coefficient of expansion, 1
Thermoanalysis, 66
Thermoplastic elastomer (TPE), 219
Thermoplastic vulcanizate (TPV), 219
Three-dimensional FEA model, 229
Three-dimensional molded silicone parts, 115, 142, 157
Through-penetration, 268
Time compression factor, 66
Two-dimensional bead model, 229
Two-dimensional bridge joint, 142

U

Ultraviolet fluorescent test chamber (Q-U-V Weather-o-meter), 210
Ultraviolet resistance, 179
Urethane, multi-part, 98

V

Vapor retarder, 98
Viscoelastic, 107

W

Water leakage, 94, 288
Waterproofing systems, 251
Weather-o-meter, 22, 210
Weatherproofing, 129
Weathering
 artificial, 66, 81
 natural, 81
 outdoor, 81
Weibull analysis, 51
Weibull distribution, 51
Wet seal, 142
Window glazing performance, 243