Index

See also Lighting
Accessible design
bathrooms, 219–223
bathtubs, 221–222
cooking center layout, 217
counter heights, locations, 216
grab bars, 222–224
kitchen sink center, 216–217
kitchens, 215–217
knee space, 215, 220–221
lavatory layout, 220–221
lighting in kitchens, 217
 pocket doors in baths, 219, 223
refrigerator work center, 217
roll-in shower, 221–222
storage areas, 216
toilet space, 221
wheelchair turning space, 215, 222–223

Acid rain, and copper flashing, 7
Acoustical sealant, 190, 193
Acrylic
sealants, 40
sinks, 252–253
tubs and showers, 253, 255
ACZA (ammoniacal copper zinc arsenate), 136–137, 147. See also Pressure-treated wood
Adhesives
comparison chart, 41
eyepoxy, 41
exterior, 40–42
laminate flooring, 179
low-VOC, 179
plastic moldings, 34–36, 185
polyurethane, 41
resilient flooring, 171
roofing tile, 69–70
yellow glue, 40–41
Agglomerates, stone tile, 230–232, 239
Air cleaners, 269, 277–281
applications, 269
comparison chart, 279
effectiveness and particle size, 278–281
effectiveness in real-world, 281
electronic, 278–280
gas removal, 278, 280
HEPA filters, 278–281, 282
mechanical filters, 278–279
negative-ion generators, 280
particles vs. gases, 277–278
portable, 281
radon removal, 278
turbulent flow precipitators, 280
Air conditioning, biological pollutants from, 282, 289
Air infiltration
effect of sheathing wraps, 3
effect on wall drying, 1
Air leakage, window ratings, 104, 113, 117
Air pollution, effect on flashings, 7, 82.
See also Indoor pollutants
Air quality. See Indoor air quality
Air space
under cedar shingles, 15
double-layer building paper, 4
draining housewraps, 4–5
in rain-screen wall, 2–3
reducing extractive bleeding, 5
under wood siding, 5, 10
between wood siding and foam, 3
Air-to-air heat exchangers.
See Energy-recovery ventilators, Heat-recovery ventilators
Algae
on low-slope roofing, 94
on metal roofing, 74
resistance to, asphalt shingles, 53
on wood roofing, 87, 93
See also Mildew
Aluminum
corrosion of, 137, 146
effects of salt spray, 7, 82, 84–85
exposed-fastener panels, 74–76
fascia details, 23
metal roofing, 82–83
modular shingles, 74, 80–81
moldable pipe flashing, 72, 77
siding nails, 11
standing-seam roofing, 78
wall flashing, 7
See also Lighting
American Architectural Manufacturers Association (AAMA), 107, 109–111
Asphalt
Americanist, bathhtubs, 254–255
Amowrap, permeance rating, 4
ANSI, grab bar guidelines, 222–224
Antiscald protection, 219, 258–259
Arches, drywall, 163–164
Architectural shingles, 52–53. See also Asphalt shingles
Argon, gas fill for windows, 112
Armachyl, tubs and showers, 255
Asbestos, 284, 292
in fiber-cement, 19
ASHRAE
air cleaner standards, 279–280
formaldehyde standard, 288
ventilation standards, 269–271
Asphalt felt
ASTM standard, 3–4
corner splines, 13
effect on wet siding, 2
interlayment for shakes, 88–90
properties, 2, 4
roofing underlayment, 54, 66–69
sealing around windows, 122
underlayment for sidewall shingles, 15
See also Underlayment
Asphalt roofing cement
incompatible with metal roofing, 84
incompatible with modified bitumen, 96
sealing shingles, 53, 57, 59–61
sealing tile roofing, 71–74
Asphalt shingles
algae resistance 53
eaves flashing, 54–56
fastening, 58–59
flushing for, 59–61
high-wind installation, 58
installation 57–62
installation temperature, 57
laminated, 52–53
low-slope installation, 59
manual sealing, 57
offsets, 57
organic vs. fiberglass, 51–52
quality, 51
reroofing with, 62
steep-slope installations, 59
types, 51–52
underlayment for, 54–55
valleys, 59–61
warranties, 53–54
wind resistance, 53
Asthma, and indoor air quality, 268–269, 282, 288–289, 293–294
ASTM
asphalt felt standard, 4
asphalt shingle standards, 53
building paper standard, 3–5
galvanized steel standards, 141, 143
roofing tile standards, 63
sealant standards, 39
stainless-steel standards, 141, 143
Awnings, shading with, 118–119
Awnings windows, 105
Backdrafting, 270–272, 293–296
effects of range hoods, 263
effects of ventilation systems, 270, 273, 275
preventing, 293, 295–296
testing for, 296
Backer rod, use in caulk joints, 38–39, 237
Backerboard
cement, 232–239, 256
gypsum, 235
See also Ceramic tile
Back-priming
fiber-cement siding, 21
wood siding 5, 9–10, 45
Balusters, fastening, 148, 150
Bamboo floors, 175
Band joist
connection to ledger, 144–146
flushing, 6, 145
stucco control joints at, 26
Bark-side down, wood trim, 31
Bath fans, 261–262
  balancing supply-only ventilation, 275
  controls, 262,
  ductwork, 262
  fan sizing, 261
  noise levels, 261
  providing whole-house ventilation, 271
Bathrooms
  accessible design, 219–223
  antisclad protection, 219
  bathtub clearances, 218
  design guidelines, 217–219
  flooring comparison chart, 225–226
  flooring options, 223, 225–226
  GFCIs required in, 219
  lavatory clearances, 217
  lighting, 205–206, 219
  mirror heights, 217
  shower sizes, 217–218
  toilet/bidet clearances, 219
  tub steps safety, 218
  typical layouts, 219–220
  ventilation from HRV/ERV, 275–277
  ventilation from multiport exhaust, 271–272
  venting with bath fans, 261–262
See also Accessible design
Bathroom ventilation, 261–262. See also Whole-house ventilation
Bathtubs
  acrylic, 253, 255
  enameled cast iron, 253–254
  enameled steel, 253
  fiberglass, 253–255
  jetted, 255–257
  lighting over, 206
  material comparison chart, 254
  mixing valves, 258–259
  scald protection, 258–259
See also Jetted tubs
Batts
  metal roofing on, 76, 81, 87–89
  tile roofing on, 67–69, 72
  wood roofing on, 87–88
Beams
  deck span chart, 148
  post connections, 147
Bedrooms
  carpeting for, 181–182
  sound control recommended, 192–193, 195
Biological pollutants, indoor, 282, 289
Bisque, characteristics of tile, 227
Bleaching
  corrosion from, 46
  to remove mildew, 46
  to remove moss and lichen, 93
Bleaching oils
  applications, 47
  finishing cedar shingles, 19
Boat test, defined, 3
Bond breakers, use with sealants, 38–39, 237
Bond breaker
  use with sealants, 38–39, 237
Bonding
  with veneer-core plywood, 186
  with particleboard, 186
  with plywood, 186
  with wood fiberboard, 186
Bonding agents
  with CSP, 186
  with metal, 186
  with particleboard, 186
  with wood fiberboard, 186
Bonding tape
  with metal, 186
  with particleboard, 186
  with wood fiberboard, 186
Bonding tape, peel-off, 186
Bonding tape, pressure-sensitive, 186
Bonding tape, water-based, 186
Bonding tape, waterproof, 186
Bonding tape, water-resistant, 186
Bondo
  cover-up, 69
  dramatic, 69
  for crazing, 69
  for holes, 69
  for roughing, 69
  for tooling, 69
  for uncoated, 69
Boron
  as a preservative, 291
  in asphalt felt, 291
  in building paper, 291
  in roofing felt, 291
Building paper
  effect on wet cladding, 2
  water leakage in, 2
  water resistance, 2
Building paper, used as drainage plane, 2
Built-up roofing (BUR), 87, 94–95
Butyl flashing tapes
  compatibility with sealants, 6
  vs. modified bitumen, 5
See also Flashing types
Butyl sealant
  characteristics, 38, 40
  sealing metal roofs, 78, 80, 84
  Butyl tape, sealing metal roofs, 78, 80, 84
  Byrne, Michael, tile consultant, 237–238
Cabinets. See Casework; Kitchen cabinets
  Callbacks avoiding on low-slope roofs, 54
  ceramic tile, 227
  rare with EPDM, 96
  water-leakage related, 1
Cambodia, decking, 139, 142
Capillary action, through siding, 1
Capillary break
  in EIFS, 29
  in rain screen, 2
  from termite shields, 7
Carbon monoxide, 290, 293–294, 295–296
Cambara, decking, 139, 142
Canova, Dennis, tile consultant, 237–238
Caulking
  see also Sealants
  with foil, 186
  with metal, 186
  with metal roofing, 186
  with particleboard, 186
  with wood fiberboard, 186
Cement backerboard, for tile, 228
Cementitious coating, 228
See also Epoxy
Cementitious materials, 234
Ceramic tile
  bisque characteristics, 227
  over cement backerboard, 232–239, 256
  comparison chart, 229–230
  over concrete slabs, 235
  countertop details, 233–235, 250
  crack isolation, 237–238
  over Dense-Shield, 235
  over drywall, 235
  over existing surfaces, 235
  flooring pros and cons, 225
  framing requirements, 232, 235
  glazed vs. unglazed, 227–228
  gROUTINg, 241–242
  over gypsum backerboard, 235
  isolation membranes, 232, 237
  leveling compounds, 235–236
  medium-set installation, 240
  mosaic, 228
  pavers, 228–230
  porcelain, 228–229
  quarry tile, 229, 230–231
  selecting tile, 227–231
  setting compounds, 237–240
  setting-compound comparison chart, 239
  shower pans, 241–243
  slip protection, 228
  strength and water absorption, 227
  subflooring requirements, 232
  substrates for 232–236
  thinset installation, 239–240
  waterproofing membranes, 236, 242–243
  wear ratings, PEI scale, 228
Chandeliers. See Pendants
China, sinks, 252, 253
Chromated copper arsenate
  health concerns, 135–136
  phase out, 135
Clad windows, 105–107, 120
  aluminum, 107
  fiberglass, 107
  vinyl, 107
Cladding
  leakage in, 1, 8–10, 12, 37
  in rain screen, 2
  See also EIFS; Siding; Shakes; Stucco;
  Vinyl siding; Wood siding; Wood shingles
Clear finishes
  exterior, 46–47
  interior, 188–189
Closet lighting, 203
Color temperature, of common lamps, 199
Color-rendering index. See CRI
Combustion appliances, 293–296
  chimney problems, 295
  fireplaces, 269, 272, 278, 293–296
  health effects, 293–294
  induced-draft, 295
  power-vented, 29
  sealed-combustion, 295
  woodstoves, 269, 278, 293–296
Compact fluorescents, 195, 197–199, 201–203, 206

See also
Aluminum
Asphalt felt
Bark-side down, wood trim
Bath fans
Baw, preservative treatment
Bisque, characteristics of tile
Biological pollutants, indoor
Bisque, characteristics of tile
Bleaching
corrosion from, 46
to remove mildew, 46
to remove moss and lichen, 93
Bleaching oils
applications, 47
finishing cedar shingles, 19
Boat test, defined
Bond breakers, use with sealants, 38–39, 237
Borate, preservative treatment
Brick veneer
  water leakage in, 2
  weep holes required, 2
Building paper
  code requirements, 3
  effect on wet cladding
  used as drainage plane
See also
Bark-side down, wood trim
Bath fans
Baw, preservative treatment
Bisque, characteristics of tile
Biological pollutants, indoor
Bisque, characteristics of tile
Bleaching
corrosion from, 46
to remove mildew, 46
to remove moss and lichen, 93
Bleaching oils
applications, 47
finishing cedar shingles, 19
Boat test, defined
Bond breakers, use with sealants, 38–39, 237
Borate, preservative treatment
Brick veneer
  water leakage in, 2
  weep holes required, 2
Building paper
  code requirements, 3
  effect on wet cladding
  used as drainage plane
INDEX

Kenny, Russell, consultant, 29
Kraft paper.
Knee space, accessible, 215, 219, 221
Kitchen ventilation.
Kitchens
assignable design, 215–217
counterpoint recommendations, 210–212
design guidelines, 209–215
eating areas, 212–213
flooring comparison chart, 225–226
flooring options, 223, 225–226
island layouts, 211–212, 214–215
lighting, 203–205, 217
natural lighting, 213–214
typical layouts, 214–215
undercabinet lighting, 195, 197–198, 204–205
Kitchen tables, seating, 213
Kitchen ventilation. See Range hoods;
Whole-house ventilation
Knee space, accessible, 215, 219, 221
Kraft paper. See Grade D building paper
Kraton
sealant in shower pan, 242
sealants, 39
Krypton, gas fill for windows, 112
Kynar, metal roof coating, 82, 85
Laminate flooring, 179, 226
in bathrooms, 179
with radiant heating, 179
Laminate
high-pressure, cabinets, 244
high-pressure, countertops, 248
low-pressure, cabinets, 244
Laminated shingles, 51–52, 58. See also
Asphalt shingles
Laminated-veneer lumber, trim, 33–34
Lamp types, 197–198, 201–202
Latex paint
application, 44–45
on cedar shingles, 19
expected service life, 43
on fiber-cement, 21
vs. oil, 44
sprayed on ceilings, 160
Latex-modified thinset, for tile, 227–228, 231, 233, 238, 234–240
Lauan
finishing characteristics, 32
underlayment for resilient flooring, 177–178
Lavatories
accessible, 220–221
clearances for, 217
Law suits, water-leakage related, 1
Lead
health effects, 284, 291
wall flashing, 7
Lead-based paint, 291–292
Lead-coated copper, 7
Leakage. See Air infiltration; Air leakage;
Water leakage
Ledgers, for exterior decks, 8, 143–146.
See also Decks
Leveling compounds
for ceramic tile, 235–236
for wood floors over concrete, 169
Light tubes, 123–124
Lighting, 194–206
accent, 195
ambient, 194–195, 203
bathroom, 205–206, 219
brackets, 201
closet, 203
color temperature, 199–200
color-rendering index (CRI), 200
cove, 201
direct, 200–201
fixtures (see Lighting, luminaires)
glossary of terms, 195–196
indirect, 201
kitchen, 203–205, 213–214, 217
lamp types, 197–198
low-voltage, 198–199, 201–202, 204
luminaires, 200–201
pendants and chandeliers, 200, 204–205
recessed, 196, 201–205
recommended levels, 196–197, 203–205
task, 195, 204
track 196, 201–203
undercabinet, 195, 197–198, 204–205
wall sconces, 200
wall washing, 195, 197, 200, 202, 204
See also Recessed lighting; Track lighting
Limestone, flooring, 231
Linoleum, 179
Low-E glass, 112, 114–118, 125
choosing by climate type, 115–116
spectrally selective, 115–116, 123, 125
Low-slope roofing, 94–96
Low-E glass, 112, 114–118, 125
choosing by climate type, 115–116
spectrally selective, 115–116, 123, 125
Low-slope roofing, 94–96
asphalt shingles, 59
BUR, 95
comparison chart, 95
EPDM, 96
metal, 74
modified bitumen, 95–96
roll roofing, 94
sky light installation, 127
tile, 66–68
underlayment, 54–55
walkable, 96–97
wood roofing, 86–87
Low-voltage lighting, 198–199, 201–202, 204
Lumber
for deck structures, 135–137
plastic alternatives, 137
See also Pressure-treated wood
LVL. See Laminated-veneer lumber
Mahogany
decor, 139
flooring, 166
Marble
countertops, 226, 229–231, 239
flooring, 229, 231, 248, 250
Mastic
for ceramic tile, 227, 237–240
for ducts, 262, 287
MDF, for casework, 184–187, 244
MDO, for casework, 186
Medex, formaldehyde-free MDF, 184
Melamine
finish on cabinets, 186, 244–246
in high-pressure laminate, 179, 244, 248
MERV, air cleaner rating, 280–281
Metal lath, under stucco, 26
Metal roofing, 74–85
comparison chart, 83
cutting, 76, 82
exposed-fastener, 74–78
foot traffic, 74, 81
flushing, 76–77, 80
galvanic corrosion, 76, 79, 83–84
galvanized steel, 82
incompatible materials, 84–85
installed on battens, 76, 81, 87–89
metal choices, 81–83
modular shingles, 80–81
paints and coatings, 85
panel movement, 75–76, 78–80
slope requirements, 74
standing-seam, 78–80
Metal shingles. See Metal roofing; Modular metal shingles
Miami-Dade County, window standards, 111
Miemiew on composite decking, 140
health effects, 282
on metal roofing, 74
moisture levels and, 269, 289
oil-based paint and, 44
removal before painting, 46–47
on unfinished wood, 47
on wood roofing, 87, 93
See also Algae
Mildewcide, in wood sealers, 45
Mirrors
height, 217
lighting at, 205–206
Mixing valves, 258–259. See also Scald protection
Model Energy Code
sheathing wrap requirements, 3
and whole-house ventilation, 269
Modified bitumen
flushing membranes, 5
flushing tapes, 5
roofing, 95–96
Modular metal shingles, 80–82
Moisture
biological pollutants and, 269, 289
effect of HRVs and ERVs on, 277
effect on formaldehyde, 269
spot ventilation of, 269
See also Bath fans; Range hoods
Moisture content
and painting, 42
of radiant slabs, 175
of wood flooring, 167–168
of wood siding, 9
Moisture-cured urethanes, 171–172
Mold
and air cleaning, 277–279, 281
causes, 269, 282, 289
health effects, 268, 282, 289
in HRVs, 276
Moldable flashing, 5, 121–122, 126–127
Moldings
flexible polyester, 185–186
urethane foam, 185
Mothballs, and air quality, 291
Nailing
asphalt shingles, 58–59
drywall, 160–161
Redwood (Continued)
nails for, 11, 13
paintability, 31
siding, 9
unfinished trim, 47
Refrigerators
accessible work center, 217
work center, 212–213
Relative humidity, effect on wood flooring, 164, 167–168
Reroofing
with asphalt shingles, 62
metal over asphalt, 76, 80
wood shakes and shingles, 91
Resilient channel
drywall fastening schedule, 161
installation, 193
sound isolation strategy, 190
STC, IIC ratings, 191–194
Resilient flooring
cork, 177–179; 226
installation, 177
linoleum, 179, 226
sheet vinyl, 176, 225
solid vinyl tile, 176–177, 225
underlayment requirements, 177–178
Respirable particles, 277–280
Ridge vents
attic ventilation, 98–99
metal roofing, 76–77
wood roofing, 90, 92
Rigid foam. See Foam sheathing
Rigid thermofoil (RTF), cabinets, 245
Roll roofing, 94
Roof flashing
asphalt shingles, 59–61
membrane for trouble spots, 66
membrane valley lining, 59–61, 75, 77
metal roofing, 76–77, 80
skylights, 56, 92, 126–127
tile roofs, 72–73, 75
valleys, 59–61, 72–73, 75, 76–77, 82
wood roofs, 89, 92–93
See also Eaves flashing; Valleys
Roof ventilation, 97–100
cathedral ceilings, 99–100
code requirements, 97
around skylights, 100
Roofing
asphalt shingles, 51–62
low-slope, 94–97
metal, 74–85
tile, 62–74
ventilation of, 97–100
wood, 85–94
See also Asphalt shingles; Low-slope roofing; Metal roofing; Tile roofing; Wood roofing
Roofing cement
improves shingles wind resistance, 53
incompatible with metal roofing, 84
incompatible with modified bitumen, 96
manual sealing of shingles, 57, 59
sealing valleys, 60–61
Rooftop decks, 150–151. See also Foot RTF. See Rigid thermofoil
Rubber tiles, kitchen flooring, 226
R-Wrap, permeance, 4
Salt air
and cedar shingles, 19
and clay tile, 63
and unfinished wood, 47
Salt spray
and aluminum, 7, 82, 84–85
and copper, 84–85
and galvanized steel, 82, 83
and stainless steel, 84
Scald protection, 258–259
retrofit, 258
Sconces, wall lights, 200
Screening
manufactured systems, 152
porch enclosures, 151–153
Screws
for composite decking, 141–142
for drywall, 160–161
for exterior decks, 141–142
gasketed for metal roofs, 76
Sealants
burl, 40
comparison chart, 38
compatible with metal roofing, 84
for EIFS, 29
for metal roofs, 77–78, 80
for radon remediation, 287
polyurethane, 40
silicone, 39–40
types, 37–40
See also Caulks
Sealers
undercoating for paint, 45–46
Secondhand smoke. See Tobacco smoke
Seismic zones, tile roofing in, 69–71
Shading
with awnings and shutters, 118–119
with fixed overhangs, 118
with shades screens, 119
reduce solar gain, 118–119
of skylights, 123
Shakes
finishing, 19
grades, 15–16
sidewall installation, 15–19
roofing installation, 85–94
self-ventilating, 2
Sheathing wrap
code requirements, 3
installation, 5
performance characteristics, 3–5
sealing around doors, 130–131
sealing around windows, 119–123
types, 4–5
at water table, 8
See also Asphalt felt; Building paper;
Plastic housewrap
Sheetrock. See Drywall
Shelving
accessible design, 126
allowable spans, 186
in kitchen cabinets, 246
Shingles. See Asphalt shingles; Modular metal shingles; Wood shingles
Shower pans
mortar-bed, 242–243
prefab, 242
Shower bases
acrylic, 253, 255
fiberglass, 253–255
jetted tubs as, 255
lighting of, 206
material comparison chart, 254
mixing valves, 258–259
scald protection, 258–259
See also Shower pans
Siding. See Cladding; Vinyl siding; Wood siding
Silicone
incompatible with metal roofing, 84
sealants, 39–40
weatherstripping, 130
Silicone-modified polyesters, 85
Sinks
acrylic, 252–253
china, 252–253
composite, 252–253
cultured marble, 252–253
eameled cast-iron, 252–253
eameled steel, 252
faucet sets, 257–258
flush-set (tile-edge), 251
materials comparison chart, 252
self-rimming vs. undermount, 252–252
solid surfacing, 252–253
stainless-steel, 252–253
work center layout, 211
Skylights, 123–127
condensation on, 125–126
controls, 123
eaves flashing/underlayment, 56, 126–127
ergy performance, 125–126
flashings with asphalt shingles, 56, 126–127
flashings in wood roofing, 92
glare from, 124–125
glazing types, 123
installation, 126–127
kitchen lighting with, 213–214
low-slope installations, 127
roof ventilation around, 100
shades and screens, 123
sizing for daylighting, 124
splayed wells, 125
steep-slope installations, 127
ventilation from, 125
Slabs on grade
radiant, 175
under wood floors, 168–170
Slate countertops, 250
SmartDeck, railing system, 148
Snow
buildup at skylights, 56, 126–127
buildup on roofs, 54, 97–98
on low-slope roofs, 94
metal roofs and, 78
protecting siding from, 6, 9
protecting deck ledgers from, 146
tile roofs and, 64–65, 67–69, 72, 75
wood roofs and, 87–89, 92
Soaking tubs, 255–257. See also Jetted tubs
Soapstone countertops, 250
Softifs
venting details, 98–100
vinyl and aluminum, 23
Solar design. See Passive solar design
Solar-heat-gain coefficient, 116
Solid surfacing
characteristics, 249–250
countertops, 250
traffic sinks, 252–253
Sones, fan noise rating, 261, 263, 271
Sound control, 188–194
flanking paths, 190–193
Tables, kitchen seating, 213
  Tannins, in redwood, cedar, 2, 11, 46, 92, 94.

  See also Extractive bleeding
  Task lighting, 195, 204. See also Lighting
  Telegraphing: of finger-jointed trim, 31
  Termite shields, 7
  Thinset
    setting compounds, 237–239
    tile installation, 239–240
  Tile nails, roofing tile, 69
  Tile roofing
    broken tiles, 74–75
    clay tile, 63–64
    concrete tile, 64–65
    energy efficiency, 62, 74, 81, 85, 98
    fastening, 68–71
    fiber-cement tile, 65–66
    flashings, 72–73
    foot traffic, 63–64, 73
    high-wind installation, 67, 69–71
    installation on battens, 67–69, 72
    installation on solid sheathing, 67–72
    layout and stacking, 68
    seismic installation, 69–71
    sheathing types, 66–68
    slope requirements, 66–69
    types, 62–64
    underlayment, 66–67
  TimberTech decking, 140
  Tobacco smoke, 268–269, 277–278, 280, 282, 287, 290, 294
  Toilets, 259–261
    gravity-flush, 259
    installation, 260–261
    low-flow comparison chart, 259
    power-assisted, 259–260
    sweating of, 260
  Track lighting, 196, 201–203
  Trex decking, 140
  Trim. See Exterior trim; Interior trim
  Tropical hardwoods
    decking, 138, 139–140
    flooring, 164, 166
  Tubs. See Bathtubs
  Turbulent flow precipitators, 280
  Twisted wires, roofing tile, 69–70
  Tyvek
    Flex-Wrap, 6
    permeance, 4
    water resistance of, 3
  Underlay, 66–67
  Underlayment
    for asphalt-shingle valleys, 59–60
    for asphalt shingles, 54
    for low-slope roofs, 54–55
    for resilient flooring, 177
    for sidewall shingles, 15
    around skylights, 126
    for tile roofs, 66–67
  for wood roofs, 87
  ventilating type, 87–88, 90, 91
  Unvented roofs, 98
  Urea-formaldehyde. See Formaldehyde
  Urethane
    floor finishes, 171–172
    foam moldings, 185
    sealant for metal roofs, 78, 80, 84
  UV-cured urethanes, 171
  Valley flashing
    asphalt shingles 59–61
    metal roofs, 76–77
    tile roofs, 72–73
    wood roofs, 92–93
  Valleys
    asphalt shingles comparison chart, 60
    closed-cut, 60
    open type, 61
    roof ventilation and, 99–100
    woven type, 60
  Vapor barriers, cold side, 6
  Veneer plaster, 163–164
  Ventilation
    bathroom, 261–262
    from casement windows, 105
    effective window area, 103
    kitchen, 262–263
    from Skylights, 115
    See also Roof ventilation; Whole-house ventilation
  Vertical wood siding
    horizontal joints, 14
    moisture problems, 9
    nailing for, 12
    water leakage in, 2
  Vikrell, FRP composite tubs, 255
  Vinyl
    compatibility with flashing membranes, 6
    finish on cabinets, 245
  Vinyl siding, 21–24
    installation, 22–24
    materials, 21–22
    nailing, 22
    self-ventilating, 2
    trim details, 22–24
    water leakage, 2
  wood trim and, 24
  Vinyl windows
    clad type, 107
    installation, 109
    solid type, 107–109
  Visible transmittance, window ratings, 116–117
  VOCs, 170, 179, 269, 282–283, 287, 290–292
    in adhesives, 179, 292
    in carpeting, 292
    in floor finishes, 170
    health effects, 283, 290
    in new homes, 269
    reducing exposure, 290
    sources, 283, 289–290
  See also Formaldehyde; Pesticides
  Volatile organic compounds. See VOCs
  Vycor Deck Protector, 142
  Wall flashing
    aluminum, 7
    copper, 7
    details, 7–9
    materials, 6
  Siding
    plastic, 140
    Trex decking, 140
    for wood roofs, 87
    for vinyl roofs, 88
  Sinks, 252–253
  Siding nails, 11, 13
  Salt spray and, 84–85
  Roofing nails, 68, 89
  reaction with galvanized, 141
  nails for shakes and shingles, 17
  nails for fiber-cement, 20
  and wood sidings, 10, 47
  and wood siding, 1

  Smith, 108
  Seals, for, 30
  Sealer, 36
  Sealant
    for metal roofs, 78, 80
    for self-venting, 2
    sealant for metal roofs, 78, 80, 84
  See also Polyurethane
  See also Polyurethane
  See also Siding
  Seating, 213
index

Warm edge spacers, for window, 114
Water damage
to EIFS, 28–29
to hardboard trim, 32–33
Water leakage
in brick veneer, 2
in claddings, 2
in diagonal wood sidings, 9–10
in EIFS, 28–29
through exteriors, 1–2, 8–10, 12, 37
splashback, 2, 10, 12
in vertical wood sidings, 9–10, 12
Water resistance
of Grade D building paper, 4
of plastic housewrap, 4
of sheathing wrap, 3
tests for, 3
Water table, detail, 7–8
Water-based paints. See Latex paint; Paints
Water-based stains, 188
Waterborne urethanes, 170–172
Waterproofing membranes
for ceramic tile, 236, 238–239
in shower pans, 242–243
Water-repellant preservatives
as clear finish, 46–47
for deck, 139, 154–155
vs. paint, stain, 43
to seal end grain, 13
as sealer, 45
in wood window construction, 106
Water-resistive barrier, code requirements, 1, 3
Wax, floor finishes, 171–172
Waxing, wood floors, 172
WeatherBest decking, 140
WeatherBest decking, 140
Weatherstripping
as bond breaker, 130
at exterior doors, 130
on windows, 104, 117
Weep holes, in rain screen, 2, 37
Weep screed, in stucco, 24–26, 28–29
Western Wood Products Association, 9, 11–12, 45
Wheelchairs
clear floor space, 215–216, 219–223
knee space for, 215, 220–221
turning circle, 215, 222–223
See also Accessible design
White cedar shingles, 15–17, 19
Whole-house ventilation
balanced systems, 270, 275–277
cathetometer, 270
comparison chart, 270
exhaust-only, 271–272
forced-air supply, 270, 273
installation, 271
sizing, 270–271
supply-only, 270, 272–275
See also Air cleaners; Energy-recovery ventilators; Exhaust-only ventilation; Heat-recovery ventilators; Supply-only ventilation
Window and Door Manufacturers Association (WDMA), 107, 110
Windows
aluminum, 110
aluminum-clad, 107
awning and hopper, 105
case, 105
certification of, 110, 112–113
comparison chart, 104
decay-resistance by species, 31–32
leakage in vertical, diagonal, 9–10, 12
installation, 10–14
grading, 9
furred out, 2
over foam sheathing, 2–3, 10
moisture content, 9
over radiant heat, 175–176
plank, 166
over battens, 87–88
eaves flashing for, 89
flashings, 92–93
grades, 86
hip and ridge, 91–92
maintenance of, 93–94
nailing, 89, 91
pressure-treated, 86
reroofing with, 91
shake installation, 89–91
shingle installation, 89, 91–92
sloping and exposure, 86–87
spaced sheathing, 87–89
valleys, 92–93
ventilation underlayment, 87–88, 90, 91
See also Shakes; Wood shingles
Wood shingles
bleaching oils, 19, 47
finishing, 19
grades, 15–16
oil-based primer on, 19
panelized, 18
roofing, 85–94
self-ventilating, 2
sidings, 15–19
unfinished, 19
See also Shakes; Wood roofing
Wood siding
back-priming, 5, 9–10
details, 10–14
discoloration of, 46
fasteners for, 11
over foam sheathing, 2–3, 10
furred out, 2
grafting, 9
installation, 10–14
leakage in vertical, diagonal, 9–10, 12
moisture content, 9
nailing schedule, 11–12
porous to water, 1
profiles, 9–10
sealing, 9–10
species, 9
unfinished, 47
See also Finishing
Wood veneer, on cabinets, 244
Woodstoves, and backdrafting, 269, 278, 293–296
Woodwork
clear finish comparison chart, 189
paint-grade materials, 183–186
stains and clear finishes for, 188
See also Casework; Interior trim
Work triangle, in kitchens, 210, 214
Xenon, undercabinet lighting, 198, 204
Yellow glue, water-resistant, 40–41
Zinc
in algae-resistant shingles, 53
metal roofing, 83
strips on wood roofing, 93
Zinc coatings
Galvalume, 83
in galvanized steel, 72, 82–83
incompatible with PT wood, 84