

GRADIA® DIRECT Flo

LIGHT-CURED FLOWABLE COMPOSITE
GRADIA® DIRECT Flo is a multi-purpose light-cured, radiopaque-micromixed hybrid type composite resin with excellent flowability. GRADIA® DIRECT Flo allows for effective direct injection using a special dispensing tip, resulting in aesthetic restorations.

For use only by a dental professional in the recommended indications.

RECOMMENDED INDICATIONS

- Restoration of Class I, II, III, IV, V cavities (paravertebral for small Class I cavities / shallow Class V cavities / surface caries).
- Restoration of I° surface caries.
- Restorations in deciduous teeth.
- Filling tunnel shaped cavities.
- Sealing hypersensitive areas.
- Liner / base / filling in cavity undercuts.
- Splitting mobile teeth.
- Additions to composite restorations. (Fig. 1)

CONTRAINDICATIONS

- Pulp capping.
- In rare cases the product may cause sensitivity in some people. If any such reactions are experienced, discontinue the use of the product and refer to a physician.

DIRECTIONS FOR USE

- Hold the syringe upright and remove the wing cap by turning counter-clockwise. Take care not to expose material to direct light from the dental lamp or natural light (Fig. 2).
- Promptly and securely attach the dispensing tip (plastic or needle type) to the dispensing tip (Fig. 2)(Fig. 3).

Note:
Take care not to attach the dispensing tip too tightly; this may damage its screw.

3) After attaching the dispensing tip, protect it with the cover until ready to use in order to avoid exposure to light (Fig. 2).

4) Care Preparation
Prepare cavity using standard techniques.
Note:
For pulp capping, use calcium hydroxide.

5) Shade Selection
Select shade from 7 shades of A1, A2, A3, A5, A9, CV and BW.

A shades are based on Vita** Shade "vitabond" trademark of VITA Zahnfabrik, Bad Säckingen, Germany.

6) Use of Light-curing Bonding System
For bonding GRADIA® DIRECT Flo to tooth structure, use a light-cured bonding system (Fig. 4). G-ential® Bond, G-Premio BOND or G-BOND which contain adhesive monomer (4-MET) for superior bondability to the structure are recommended.

Note:
When using light-cured bonding system, follow manufacturer's instructions for use.

5) Placement of GRADIA® DIRECT Flo
1) Remove cover from the dispensing tip on the syringe (Fig. 5).

2) Prior to extension of material, gently trial push the plunger through the dispensing tip to make sure the tip is securely attached to the syringe. To remove any air from the dispensing tip, with the tip pointing upwards gently push forward the syringe plunger until material reaches the mouth of the tip (Fig. 6).

Note:
If there is air inside the dispensing tip, air bubbles may be formed at the time of injection.

3) Place the dispensing tip as close as possible to the cavity, and slowly push the plunger to inject material into it (Fig. 7). Alternatively, dispense material onto a mixing pad and transfer to the cavity using a suitable instrument.

Note:
a. When attaching the dispensing tip, make sure that no material is sticking to the joint between the tip and the syringe in order to ensure a tight connection.

b. If the syringe does not extrude smoothly, remove the dispensing tip and extrude material directly from the syringe to make sure the tip is correctly seated.

c. The material will start to harden if exposed to the dental light or ambient light. Be sure to protect it from light when working for a mixing pad.

d. After use, immediately remove the dispensing tip and tightly close the syringe with the wing cap.

Clinical Hint 1
In order to inject effectively, use the surface tension of the material to ensure uniformity across the entire surface of the restoration during build up. Once the required amount has been injected, release the pressure on the plunger and withdraw the syringe in a direction perpendicular to the surface. This will allow the material to separate from the dispensing tip and provides a smooth surface over the restoration.

Clinical Hint 2
When filling a large cavity, it is recommended to place material incrementally into the cavity. Another effective method is to use GRADIA® DIRECT Flo for filling in undercuts or a liner/base, and then to place composite resin (GRADIA® DIRECT, G-ential®, Essentia™, etc.) on top.

6) Light Curing
Light cure the GRADIA® DIRECT Flo using a light curing unit (Fig. 8). Refer to the following chart for Irradiation Time and Effective Depth of Cure.

Note:
When light curing material, wear protective glasses.

Irradiation Time and Effective Depth of Cure

| | Shade | A1, A2, A3, A5, AO3, CV | A1, A2, A3, BW | A1, A2, A3, AO3, CV |
|---------|---|-------------------------------------|----------------------|------------------------------|
| 10 sec. | (Halogen) LED (700mW/cm²) (high power) Visible light e.g. GC-Light Pro | 20 mm | 1.5 mm | 1.5 mm |
| 10 sec. | (Halogen) LED (700mW/cm²) (low power) Visible light e.g. GC-Light Pro | 3.0 mm | 2.5 mm | 3.0 mm |
| 40 sec. | (Halogen) LED (700mW/cm²) (more than 1200mW/cm², e.g. GC-Light Pro) | 3.0 mm | 2.5 mm | 3.0 mm |

7) Shaping and Polishing
Shape and polish using standard techniques.

SHADES
A1, A2, A3, A5, AO3, CV (Cervical color), BW (Bleaching White)

STORAGE
Recommended for optimal performance, store in a cool and dark place (4 - 25°C / 39.2 - 77.0°F) (Shelf life: 3 years from date of manufacture)

Clinical Applications
Onciozačné kompozitné prepracovanie
Gumené klinické indikácie
Gumené zostavovanie klinickej
Gumené výrobenie klinickej
Gumené sapeženie
Klinické sapeženie

Fig. 1 Obr. 1
Fig. 2 Obr. 2
Fig. 3 Obr. 3
Fig. 4 Obr. 4
Fig. 5 Obr. 5
Fig. 6 Obr. 6
Fig. 7 Obr. 7
Fig. 8 Obr. 8
Fig. 9 Obr. 9
Fig. 10 Obr. 10
Fig. 11 Obr. 11
Fig. 12 Obr. 12
Fig. 13 Obr. 13
Fig. 14 Obr. 14
Fig. 15 Obr. 15
Fig. 16 Obr. 16
Fig. 17 Obr. 17
Fig. 18 Obr. 18
Fig. 19 Obr. 19
Fig. 20 Obr. 20
Fig. 21 Obr. 21
Fig. 22 Obr. 22
Fig. 23 Obr. 23
Fig. 24 Obr. 24
Fig. 25 Obr. 25
Fig. 26 Obr. 26
Fig. 27 Obr. 27
Fig. 28 Obr. 28
Fig. 29 Obr. 29
Fig. 30 Obr. 30
Fig. 31 Obr. 31
Fig. 32 Obr. 32
Fig. 33 Obr. 33
Fig. 34 Obr. 34
Fig. 35 Obr. 35
Fig. 36 Obr. 36
Fig. 37 Obr. 37
Fig. 38 Obr. 38
Fig. 39 Obr. 39
Fig. 40 Obr. 40
Fig. 41 Obr. 41
Fig. 42 Obr. 42
Fig. 43 Obr. 43
Fig. 44 Obr. 44
Fig. 45 Obr. 45
Fig. 46 Obr. 46
Fig. 47 Obr. 47
Fig. 48 Obr. 48
Fig. 49 Obr. 49
Fig. 50 Obr. 50
Fig. 51 Obr. 51
Fig. 52 Obr. 52
Fig. 53 Obr. 53
Fig. 54 Obr. 54
Fig. 55 Obr. 55
Fig. 56 Obr. 56
Fig. 57 Obr. 57
Fig. 58 Obr. 58
Fig. 59 Obr. 59
Fig. 60 Obr. 60
Fig. 61 Obr. 61
Fig. 62 Obr. 62
Fig. 63 Obr. 63
Fig. 64 Obr. 64
Fig. 65 Obr. 65
Fig. 66 Obr. 66
Fig. 67 Obr. 67
Fig. 68 Obr. 68
Fig. 69 Obr. 69
Fig. 70 Obr. 70
Fig. 71 Obr. 71
Fig. 72 Obr. 72
Fig. 73 Obr. 73
Fig. 74 Obr. 74
Fig. 75 Obr. 75
Fig. 76 Obr. 76
Fig. 77 Obr. 77
Fig. 78 Obr. 78
Fig. 79 Obr. 79
Fig. 80 Obr. 80
Fig. 81 Obr. 81
Fig. 82 Obr. 82
Fig. 83 Obr. 83
Fig. 84 Obr. 84
Fig. 85 Obr. 85
Fig. 86 Obr. 86
Fig. 87 Obr. 87
Fig. 88 Obr. 88
Fig. 89 Obr. 89
Fig. 90 Obr. 90
Fig. 91 Obr. 91
Fig. 92 Obr. 92
Fig. 93 Obr. 93
Fig. 94 Obr. 94
Fig. 95 Obr. 95
Fig. 96 Obr. 96
Fig. 97 Obr. 97
Fig. 98 Obr. 98
Fig. 99 Obr. 99
Fig. 100 Obr. 100
Fig. 101 Obr. 101
Fig. 102 Obr. 102
Fig. 103 Obr. 103
Fig. 104 Obr. 104
Fig. 105 Obr. 105
Fig. 106 Obr. 106
Fig. 107 Obr. 107
Fig. 108 Obr. 108
Fig. 109 Obr. 109
Fig. 110 Obr. 110
Fig. 111 Obr. 111
Fig. 112 Obr. 112
Fig. 113 Obr. 113
Fig. 114 Obr. 114
Fig. 115 Obr. 115
Fig. 116 Obr. 116
Fig. 117 Obr. 117
Fig. 118 Obr. 118
Fig. 119 Obr. 119
Fig. 120 Obr. 120
Fig. 121 Obr. 121
Fig. 122 Obr. 122
Fig. 123 Obr. 123
Fig. 124 Obr. 124
Fig. 125 Obr. 125
Fig. 126 Obr. 126
Fig. 127 Obr. 127
Fig. 128 Obr. 128
Fig. 129 Obr. 129
Fig. 130 Obr. 130
Fig. 131 Obr. 131
Fig. 132 Obr. 132
Fig. 133 Obr. 133
Fig. 134 Obr. 134
Fig. 135 Obr. 135
Fig. 136 Obr. 136
Fig. 137 Obr. 137
Fig. 138 Obr. 138
Fig. 139 Obr. 139
Fig. 140 Obr. 140
Fig. 141 Obr. 141
Fig. 142 Obr. 142
Fig. 143 Obr. 143
Fig. 144 Obr. 144
Fig. 145 Obr. 145
Fig. 146 Obr. 146
Fig. 147 Obr. 147
Fig. 148 Obr. 148
Fig. 149 Obr. 149
Fig. 150 Obr. 150
Fig. 151 Obr. 151
Fig. 152 Obr. 152
Fig. 153 Obr. 153
Fig. 154 Obr. 154
Fig. 155 Obr. 155
Fig. 156 Obr. 156
Fig. 157 Obr. 157
Fig. 158 Obr. 158
Fig. 159 Obr. 159
Fig. 160 Obr. 160
Fig. 161 Obr. 161
Fig. 162 Obr. 162
Fig. 163 Obr. 163
Fig. 164 Obr. 164
Fig. 165 Obr. 165
Fig. 166 Obr. 166
Fig. 167 Obr. 167
Fig. 168 Obr. 168
Fig. 169 Obr. 169
Fig. 170 Obr. 170
Fig. 171 Obr. 171
Fig. 172 Obr. 172
Fig. 173 Obr. 173
Fig. 174 Obr. 174
Fig. 175 Obr. 175
Fig. 176 Obr. 176
Fig. 177 Obr. 177
Fig. 178 Obr. 178
Fig. 179 Obr. 179
Fig. 180 Obr. 180
Fig. 181 Obr. 181
Fig. 182 Obr. 182
Fig. 183 Obr. 183
Fig. 184 Obr. 184
Fig. 185 Obr. 185
Fig. 186 Obr. 186
Fig. 187 Obr. 187
Fig. 188 Obr. 188
Fig. 189 Obr. 189
Fig. 190 Obr. 190
Fig. 191 Obr. 191
Fig. 192 Obr. 192
Fig. 193 Obr. 193
Fig. 194 Obr. 194
Fig. 195 Obr. 195
Fig. 196 Obr. 196
Fig. 197 Obr. 197
Fig. 198 Obr. 198
Fig. 199 Obr. 199
Fig. 200 Obr. 200
Fig. 201 Obr. 201
Fig. 202 Obr. 202
Fig. 203 Obr. 203
Fig. 204 Obr. 204
Fig. 205 Obr. 205
Fig. 206 Obr. 206
Fig. 207 Obr. 207
Fig. 208 Obr. 208
Fig. 209 Obr. 209
Fig. 210 Obr. 210
Fig. 211 Obr. 211
Fig. 212 Obr. 212
Fig. 213 Obr. 213
Fig. 214 Obr. 214
Fig. 215 Obr. 215
Fig. 216 Obr. 216
Fig. 217 Obr. 217
Fig. 218 Obr. 218
Fig. 219 Obr. 219
Fig. 220 Obr. 220
Fig. 221 Obr. 221
Fig. 222 Obr. 222
Fig. 223 Obr. 223
Fig. 224 Obr. 224
Fig. 225 Obr. 225
Fig. 226 Obr. 226
Fig. 227 Obr. 227
Fig. 228 Obr. 228
Fig. 229 Obr. 229
Fig. 230 Obr. 230
Fig. 231 Obr. 231
Fig. 232 Obr. 232
Fig. 233 Obr. 233
Fig. 234 Obr. 234
Fig. 235 Obr. 235
Fig. 236 Obr. 236
Fig. 237 Obr. 237
Fig. 238 Obr. 238
Fig. 239 Obr. 239
Fig. 240 Obr. 240
Fig. 241 Obr. 241
Fig. 242 Obr. 242
Fig. 243 Obr. 243
Fig. 244 Obr. 244
Fig. 245 Obr

