COATS gral®

**Introducing high technology CF polyester threads**

A filament polyester thread in soft finish, COATS gral® is available in a wide variety of fashion leather colors used in the casual footwear industry. The filament polyester is stretch-set for controlled elongation, tight stitch lines and high quality sewing of fashion shoes.

**Main Applications**
- Ladies’ fashion shoes
- Children’s shoes
- Men’s casual shoes
- Wallets and leather piece goods
- Automotive seat covers (European cars)
- Mattress and contract quilting

**Special Features**
- High technology lubricated polyester threads
- Stretch-set for low elongation
- Tight stitches and lustrous seam appearance
- Excellent loop formation
- Wide fashion color range
- Soft on leather, and less wear and tear of machine parts
Technical Data – COATS gral
Unbonded, twisted, continuous filament polyester thread

<table>
<thead>
<tr>
<th>Size</th>
<th>Tex</th>
<th>Construction (denier x ply)</th>
<th>Average Strength (grams)</th>
<th>Elongation at break %</th>
</tr>
</thead>
<tbody>
<tr>
<td>40/2</td>
<td>27</td>
<td>125x2</td>
<td>2040</td>
<td>19</td>
</tr>
<tr>
<td>80/3</td>
<td>30</td>
<td>110x3</td>
<td>2400</td>
<td>19</td>
</tr>
<tr>
<td>60/3</td>
<td>45</td>
<td>140x3</td>
<td>3221</td>
<td>21</td>
</tr>
<tr>
<td>40/3</td>
<td>70</td>
<td>220x3</td>
<td>5150</td>
<td>21</td>
</tr>
<tr>
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<td>90</td>
<td>220x4</td>
<td>6425</td>
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<tr>
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<td>135</td>
<td>440x3</td>
<td>9600</td>
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<td>210</td>
<td>220x3x3</td>
<td>14450</td>
<td>21</td>
</tr>
<tr>
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<td>300</td>
<td>1000x3</td>
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<td>25</td>
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<td>350</td>
<td>1100x3</td>
<td>26000</td>
<td>25</td>
</tr>
</tbody>
</table>

Notes: Length pack-out in key sizes: Tex 45: 3000m, Tex 70: 1800m, Tex 135: 1000m
Tex 45 also available in a 220x2 construction
Tex 210 also available in 10/2 construction

Wide Color Range
- Fashion colors from Coats color card
- Wide range of dyestuffs used to specifically tailor product for special colorfastness requirements
- Please contact Coats Technical Service for details

Chemical Properties of CF Polyester
- Melting point 485°F - 500°F (250°C - 260°C)
- Unaffected by mildew, rot and marine water
- Good resistance against acid rain
- Excellent bleach resistance and colorfastness

A fashion color range in CF polyester

COATS gral® thread comes to you from the World of Coats, the world’s largest supplier of industrial thread products. We have the unique ability to service our customers anywhere in the world with our global product offering, innovative technical solutions, creative ideas and superior customer service. All Coats products are backed by Coats Technical Service, which gives you expert, on-the-spot advice on your sewing problems, absolutely free of cost.