**Needle point styles for the desired seam appearance in leather**

**LR-point**
- **Application:**
  - Decorative lockstitch seams in soft to medium-hard leather
  - For all types of leather

**LL-point**
- **Application:**
  - Straight seams with uniform closed appearance
  - For nearly all common types of leather

**S-point**
- **Application:**
  - Straight seams with relatively tight stitch formation in leather
  - For soft to medium-hard leather
  - Seams located directly on an edge

**SD-point**
- **Application:**
  - Straight seam position (slightly irregular)
  - For soft leather (clothing leather)
  - For multi-directional applications

Both DH and D points are suitable for medium-hard to hard leather and for medium to long stitches.

**Needle point styles for interior fabrics**

**R-point**
- **Application:**
  - Standard for lockstitch, woven fabrics, coated woven fabrics, artificial leather

**RG-point**
- **Application:**
  - Standard for chain stitch

**FFG-point**
- **Application:**
  - For general knitted fabrics, woven fabrics made from cotton and/or synthetic fabrics

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**Mobiltech**

Recommendations for perfect seams in automotive interiors

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### General recommendations for needle sizes and point styles

<table>
<thead>
<tr>
<th>Material</th>
<th>Point style</th>
<th>Needle size</th>
<th>Joining seams and multi-directional sewing operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leather (with and without foam lining)</td>
<td>LR, LL, S (defined seam positions), R, RG, SD, DH</td>
<td>R, SD, RG¹</td>
<td>Nm 110–140 (depending on the sewing thread size)</td>
</tr>
<tr>
<td>Artificial leather (with and without foam lining)</td>
<td>LR, LL, S (defined seam positions), R, RG, SD, DH</td>
<td>R, SD, RG</td>
<td>Nm 110–140 (depending on the sewing thread size)</td>
</tr>
<tr>
<td>Material combination leather/artificial leather (with and without foam lining)</td>
<td>LR, LL, S (defined seam positions), R, RG, SD, DH</td>
<td>R, SD, RG</td>
<td>Nm 110–140 (depending on the sewing thread size)</td>
</tr>
<tr>
<td>Material combination woven/felt</td>
<td>R, RG</td>
<td>Nm 110–140 (depending on the material and sewing thread size)</td>
<td></td>
</tr>
<tr>
<td>Material combination leather/felt + cardboard/felt</td>
<td>DH, D</td>
<td>Nm 110–140 (depending on the material and sewing thread size)</td>
<td></td>
</tr>
<tr>
<td>Material combinations leather/textile + artificial leather/textile</td>
<td>R, RG, FFG</td>
<td>Nm 90–120 (depending on the material and sewing thread size)</td>
<td></td>
</tr>
<tr>
<td>Woven fabrics (with and without foam lining)</td>
<td>R, RG, FFG</td>
<td>Nm 90–120 (depending on the material and sewing thread size)</td>
<td></td>
</tr>
<tr>
<td>Knit fabrics (warp and weft knit) with and without foam lining</td>
<td>RG, FFG</td>
<td>Nm 90–110 (depending on the material and sewing thread size)</td>
<td></td>
</tr>
<tr>
<td>Artificial leather</td>
<td>R, RG²</td>
<td>Nm 120–140</td>
<td></td>
</tr>
<tr>
<td>Airbag</td>
<td>R, RG²</td>
<td>Nm 140–180 (depending on the material and sewing thread size)</td>
<td></td>
</tr>
<tr>
<td>Seat belts</td>
<td>R, RG²</td>
<td>Nm 160–230 (depending on the material and sewing thread size)</td>
<td></td>
</tr>
<tr>
<td>Floor mats (edged)</td>
<td>R, RG²</td>
<td>Nm 140–230 (depending on the material and sewing thread size)</td>
<td></td>
</tr>
</tbody>
</table>

¹ Recommendation: Use the SAN® 12 needle ² Recommendation: Use the SAN® 5 needle