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| <b>Created by:</b><br>QA Engineer   |                  |  | Technical Specification | Page: 1 of 1 |
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### 1. Scope

Stainless steel tube, with various abrasive polished finishes intended for decorative or structural applications.

### 2. Specifications

This New Zealand Tube Mills specification covers only surface finish. All other aspects of the tube must be in compliance with the national specification (generally ASTM or AS).

### 3. Surface roughness

Surface roughness as in Table 1, is measured longitudinally for round tube, transverse for square and rectangular tube. New Zealand Tube Mills undertakes sample test on the tube to assess the quality of the surface.

### 4. Manufacture

Ultrabrite polished tube is finished by buffing a polishing mop. All coarser finishes are grit polished (finished), without buffing.

### 5. Appearance

As in Table 1, when viewed from 500 mm distance. In all cases, the weld outer surface must be fully integrated with the surrounding tube surface. Bulging, pitting or grooving of tube at the weld is not acceptable.

| <b>Finish</b>       | <b>Ra <math>\mu\text{m}</math></b> | <b>Appearance</b>  |
|---------------------|------------------------------------|--|
| Ultrabrite          | 0.05 max.                          | Must be bright (mirror reflective) with no visible pits or blemishes. When tube is rotated there must be minimal visible out-of-round. There may be very faint residues of grinding scratches from weld removal. |
| 320#                | 0.25 – 0.40<br>see note 2          | Minor blemishes are acceptable. Light visible residual grit polishing marks are acceptable. The tube must not be mirror reflective.  |
| 240#                | 0.35 – 0.50                        | Minor blemishes are acceptable. Light visible residual grit polishing marks are acceptable. The tube must not be mirror reflective.  |
| Hair Line<br>(180#) | 0.30 – 0.50<br>see note 3          | Visible traces of the weld are acceptable, such as diagonal grit polishing marks. Minor pits also acceptable. The tube must not be mirror reflective.  |

#### Notes

1. 320# is the standard finish for polished round tube.
2. 180# is the standard for square and rectangular tubes.

### 6. Certification and Acceptance

Certificate of Test of Finished Tube and acceptance criteria need to be negotiated prior to mill run.