Case Studies Discussion

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(Initials are beside each individual's contribution to the discussion)

Case Study 1:

Guessing: Group

Stairs:
Angle 90deg+-5 RJ, SCL
Rise – 20cm RJ, LM, CL
Run – 30cm SCL, LM
Tread - at least 30cm? LM, EM, CL
Width – approx. 1m LM, EM, SCL
Head Room – 2m minimum LM, EM, CL

Handrail:
One or Two: one EM
Height from stair – 1-1.5m LM, EM
Clearance from the wall – 5-10cm SCL, LM, EM,

Actual: Group

Angle: 45 degrees max LM, EM, RJ
Rise: 200mm max LM, EM, RJ
Run: 210mm min LM, EM
Tread: 235mm min LM, EM, CL
Width – 900mm min LM, EM
Head Room- 1.95m min LM, EM, CL

Handrail:
Amount: 1 if width less than 1m LM, EM
2 if width is equal to or greater than 1m LM, EM, SCL
Height of Stair: between 800mm and 920mm LM, EM
Clearance from the wall – 40mm min LM, EM, CL

Comparison:
Fairly close, but we misunderstood the meaning of angle
Handrail, more than one is necessary for wider stairs, which we missed - SCL
Clearance was higher, so the code wasn't as strict

Case Study 2:

Summary:

ISO 11193-1:2020
https://www.iso.org/obp/ui/#iso:std:75379:en

ASTM
https://compass-astm-org.proxy.lib.uwaterloo.ca/EDIT/html_annot.cgi?D3578+19

Predicted Specs:
Not fluid absorbing – waterproof –SCL, LM, EM, CL
Thickness - SL, LM, EM
Toughness –SL, CL
Resistance from holes - SL, LM, EM , CL
Sterile – SCL, SL, LM, EM , CL
Elasticity - SL, LM, EM
Shelf life - SCL, LM, EM , CL

Standard Organization : ASTM D3578
- Any rubber that meets specifications
- Lubricant may be applied
- Inside and outside surfaces must be free of talc
  Performance Requirements:
- Sterile
- Free from holes
- Consistent physical dimensions
- Physical Properties:
  - Strength
  - Stress at elongation
- Minimal powder residue
- Low aqueous soluble protein content
- Maximum powder limit

Alternative Standard Organization: ISO, but the standard is not available through Waterloo Library's Techstreet subscription.

Comparison:
Our guesses were too simple – the actual standards had specific testing methods and specific physical properties - SCL
Most of what we guessed was included in the actual standard in some way, though - SCL
Our predicted specifications are a "good starting point", not comprehensive enough for a real standard