

Division 12 35 53.19 Phenolic Shelving

PART 2 - PRODUCTS A.

Shelving:

1. Adjustable mechanical shelf hardware (on walls):

- a. KV 83ANO standards with KV 183R/L/C brackets. Provide a minimum of two brackets per shelf.
- b. Lengths as indicated on the drawings.
- c. Use aluminum screws.
- d. Make no substitutions.

2. Shelf material:

- a. Phenolic resin laboratory grade
- b. Manufacturers: Subject to compliance with requirements, provide products by the following, or approved equal: FunderMax GmbH, supplied by Total lab Solutions, Scottsdale, AZ. 1-888-980-9845

c. Physical Properties:

- 1) Density DIN 52350/ISO 1183: $\geq 1,35 \text{ g/cm}^3 / \geq 84 \text{ lbs/ft}^3$
- 2) Modulus of elasticity EN ISO 178: $\geq 9000 \text{ MPa} / \geq 1,305,340 \text{ psi}$
- 3) Flexural strength EN ISO 178: $\geq 80 \text{ MPa} / \geq 11,603 \text{ psi}$
- 4) Tensile strength EN ISO 527-2: $\geq 60 \text{ MPa} / \geq 8,702 \text{ psi}$
- 5) Resistance to scratching EN 438-2, point 25: 4-6 N (6N = 1.35 lbf)
- 6) Resistance to impact EN 438-2, point 21: $\leq 8\text{mm} / \leq 1/3''$
- 7) Resistance to stress abrasion EN 438-2, point 10: $\geq 450 \text{ U}$ (rotations)
- 8) Dimensional stability measured at elevated temperatures with moisture change EN 438-2, point 17: $\leq 0,05\%$ length; $\leq 0,15\%$ width
- 9) Resistance to boiling water EN 438-2, point 12: 0,3%
- 10) Coefficient of thermal expansion DIN 52328: 20×10^{-6}
- 11) Resistance to dry heat EN 438-2, point 16: 5 no visible changes, no blisters or cracks
- 12) Resistance to staining EN 438-2, point 26 (group 1-3): 5 no visible changes, no blisters or cracks
- 13) Light fastness EN 438-2, point 27: 4 or 5
- 14) Non-porous and non-microporous surface and edges
- 15) Surface will not support bacteria growth
- 16) Will not support oxidation of material surface
- 17) Both sides decorative and chemical resistant
- 18) Double hardened acrylic surface finish
- 19) Min. thickness of the acrylic finish: $\geq 0,1 \text{ mm} / 0.004''$
- 20) Environmental Standards: FSC / PEFC certification available, Environmental Product declaration (EPD) is available; Manufacturer recycles waste and cutoffs to produce green electricity.

d. Thickness: minimum 3/4" (19mm) shelving and 1" (25mm) thick counter and splash, or as specified on drawings by Architect.

e. Color: 1) To be selected from the manufacturer's full list of available colors.

- a) Black - code 0082; b) White - Code 0085; c) Arctic Bright White - code 0606; d) Pastel Gray code 0074;
- e) Charcoal gray code 0077; f) Volcano Gray – code 2181.