

# Orthoses Materials - Frame Options

Information Provided By KevinRoot Medical

## EVA

<b>EVA (Shore A)</b>	15 <input type="checkbox"/>	30 <input type="checkbox"/>	45 <input type="checkbox"/>	65 <input type="checkbox"/>
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### FRAME FABRICATION METHODS ACCEPTED:

- Plaster positive model vacuum formed
- CAD CAM positive model vacuum formed
- Redimold positive model vacuum formed
- Direct mill frame

### FEATURES:

- Low to high compression set (depending on rigidity)
- Excellent shock absorption
- Viscoelastic properties

### CLINICAL INDICATIONS:

- Sedentary to active patients

EVA, or ethyl vinyl acetate, is a closed-cell foam material used for orthotic frames and frame filler. It makes up the foundation of the heel cup, the material that extends distally to proximal of the metatarsal heads and the inferior arch frame support. This material comes in a variety of durometers or hardnesses based on Albert Ferdinand's Shore A scale. The prescribing process is simplified based on rigidity scale:

- Myolite is flexible
- 30 EVA is semi-flexible
- 45 EVA is semi-rigid
- 65 EVA is rigid

For EVA vacuum formed frames, a 3-5mm thick EVA frame is thermo-molded to the positive model. Frame filler is then added to provide reinforcement. For direct mill EVA lab processes, subtractive manufacturing is used to mill out the contour of the orthotic frame directly from the block of selected EVA material.

**Note:** For flexible EVA rigidities (15 Shore A), Myolite material is used as frame filler.



Rigid



Semi-Rigid



Semiflexible



Flexible

\*color depicted may change between density of EVA

**Note:** All illustrations and diagrams are of right foot