

Description

The DD-HP-Series system is an adjustable high profile aluminum joint system. This design is adjustable to height variances using the “tuning fork” design. Adjustments in elevations may be compensated for in the field to match existing conditions allowing for a good fit. Simply anchor the bottom extrusion into place making sure it is plumb and equal distance from the opposing side, place the top extrusion over the male support extrusion, make adjusts to the elevation using the leveling device, match drill though the vertical legs of the extrusions, and bolt the connection using the stainless steel hardware provided.

This system is designed to be used in split slab applications. The continuous seal coupled with the optional extended waterproof wings of the sealing element provide a unique monolithic seal. The top driving surface has stainless steel formed angles to protect the sealing element and sandwich it directly into the aluminum extruded edge rails.

The unique design of the aluminum edge rail system assures proper alignment and rigidity of the system. The overlap of the top rails at the splice locations bridge the bottom male extrusions which provides the system with stability and uniformity in width of joint opening.

The seal has a retainer lug design, which fits snugly into the top channel of the female fork extrusion. The entire system may be factory fabricated to match various demands of field conditions including vertical and horizontal changes in plan.

Physical Properties

The system consists of four items: an elastomeric sealing element, a formed top plate, an aluminum rail, and drill-in anchors spaced at 12” o/c. (Note that the system may be used in conjunction with Polycrete elastomeric concrete.)

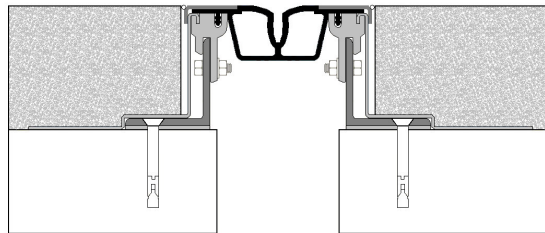
The sealing element is an extruded shape made from an EPDM-based, thermo-rubber material (Santoprene®). This material meets requirements of ASTM D2000 and has properties as shown in Table 1. The preformed sheet attachment, if required, is also extruded from thermo-rubber.

The formed top plate is fabricated from stainless steel meeting ASTM A167 Type 304. The edge rails are extruded from aluminum with properties meeting ASTM B221 alloy 6063-T5. The drill-in anchors, and screws, are selected and supplied to meet the specific application.

The Polycrete consists of a combination of a resin mixture and a gradation of sands and aggregate sizes (see the Polycrete data sheet for further information and technical properties.)

TABLE 1 – Physical Properties of the EPDM-Based Thermo-Rubber Seal Element

Property	ASTM Test Method	Requirement
Tensile strength, min.	D412	1000 psi
Elongation at break, min.	D412	410%
Hardness, Type A durometer	D2240 (modified)	67
Compression set	D395 (Method B)	
168h @ 77°F		24%
168h @ 212°F		36%
Tear strength	D624	140 lb/in
Tension set	D412	10%
100% modulus	D412	420 psi
Specific gravity	D792	0.97
Brittle point	D746	< -81°F



PRODUCT	MIN. WIDTH IN (MM)	MID-RANGE IN (MM)	MAX. WIDTH IN (MM)	TOTAL MOVEMENT IN (MM)
DD-400 HP	1.25” (31.8)	2.75” (69.9)	4.25” (107.9)	3.00” (76.2)