

Reasons for using direct adaptive Di-Ad HPLC column connectors - Tips & Suggestions

How to reduce peak broadening due to poor column connections

The spring-loaded “Direct Adaptive” Di-Ad™ HPLC column connectors were designed for speed and convenience when changing between different column brands on your instrument.

In the example below, we demonstrate how this error-free process using DiAd fittings can also reduce peak broadening from common poor connections.



Trace	Fitting Used	Height (<i>mAU</i>)	Plates (<i>N</i>)
Black	PEEK	31.33	6306
Red	Poorly Inserted PEEK	30.36	6023
Blue	Di-Ad™	35.37	7160

Method Conditions:



Direct Adaptive HPLC column connector: Double end fitting

Catalog No.: [49910-10-DD](#)

Dimensions: 0.010" ID x 1/16th" OD, 100mm long

Column: Cogent Bidentate C8™, 4μm, 100Å.

Catalog No.: [40008-10P](#)

Dimensions: 4.6mm x 100mm

Mobile Phase: 40% acetonitrile / 60% DI water 0.1 % formic acid

Injection vol.: 1μL

Flow rate: 1.0mL / minute

Detection: UV 254nm

Sample Preparation: 0.1mg / mL phenol in mobile phase.

Notes: Column efficiency: theoretical plates (N) 1/2 Height $N = 5.54((t_R/W)^2)$

t_R = Retention time of peak

W = Width of peak measured at 1/2 height

