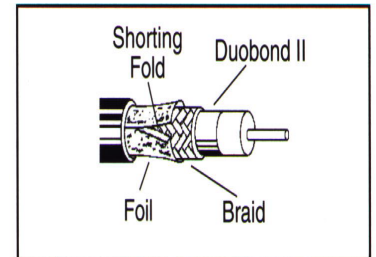


High quality  
Coaxial cables  
for Return-path  
applications

## Duobond Plus® Shielding for Return-path in modern broadband HFC-networks

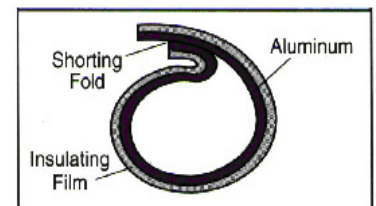
### Duobond Plus® Shielding Technology

In recent years cable operators have been working to offer additional services, i.e. telephony and internet, to the market. To enhance the performance of existing HFC-networks, to handle such new 2-way interactive services, a search for better protection to electromagnetic interference has lead to coax cables with improved shield performance against signal ingress or egress. *Duobond Plus®* is the solution from Belden for the CATV network cabling engineers' challenge on the new technology requirements.



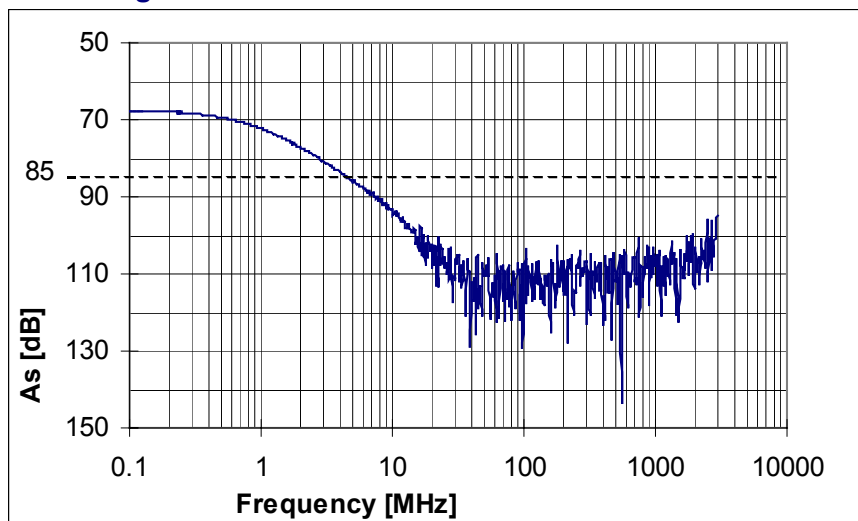
### Construction details

*Duobond Plus®* consists of a Duobond II foil tape (a laminated tape of foil/film/foil, bonded to the dielectric with a layer of adhesive) surrounded by a braid, plus an outer layer of foil featuring a unique shorting fold, which creates the effect of a solid metal conduit.



This shorting fold (see diagram) provides a metal-to-metal contact, which improves both the low and high frequency performance of the cable. This fold prevents a slot opening being created in the shield, thereby preventing signal egress or ingress. In addition, this outer foil is bonded to the jacket, **making stripping and connectorisation easier**. *Duobond Plus®* is a Belden innovation.

### Screening attenuation for Belden RG6/ H126 Duobond Plus®



*Duobond Plus®*

*Coax Products*

*RG6 DB+*

*RG11 DB+*

*RG59 DB+*

*H126 DB+*

*PRG11 DB+*

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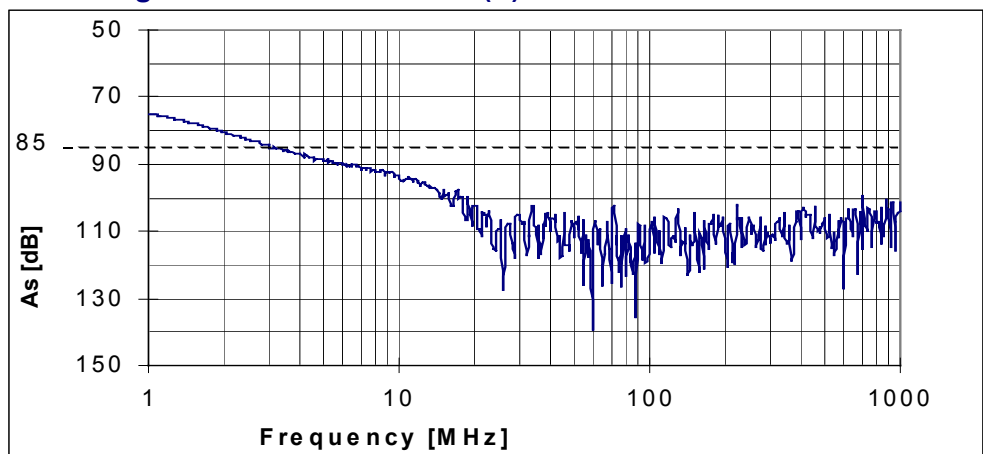
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## Screening Efficiency

Broadband cables need better screening attenuation. Through improved shielding by *Duobond Plus®* the low frequencies in the HFC-network are no longer a worry for the designs as can be seen below.

Independent measurements carried out by 'Deutsche Telekom' are shown in this technical bulletin. The measurement data on the RG11 with *Duobond Plus®* (below) clearly show the excellent performance at the return path frequencies starting from 5 MHz and up with reference to the norm on screening attenuation of better than 85dB. Comparison of the *Duobond Plus®* performance with Tri-shield and Quad-shields shows that the first one exceeds the others.

## Screening attenuation for Belden (P)RG11 Duobond Plus®



## Connectors

The construction of the *Duobond Plus®* coax cables in the product range from Belden is designed **to be used with standard connectors**. This allows for ease at installation through ease of cable termination.

## Products

Currently available standard products are the RG6 DB+, RG11 DB+ and RG59 DB+. Recently Belden has developed a version for the European market. The H126 DB+ (drop) and the PRG11 DB+ (distribution), with copper conductor material and a PVC or a PE outer sheath, meet the EN50117 norm.

FRNC/LSNH versions are currently under development meeting European material standards. Application specific versions meeting your network's requirements are available on request.