# dot gain/TVI (tonal value increase)

Dot gain, or TVI (tonal value increase), is a phenomenon that causes printed material to look darker than intended. This happens because the diameter of halftone dots increases during the prepress and printing process. It also refers to an optical dot gain because dots on paper absorb more light than their physical area would suggest due to a scattering of reflected light within the paper.

TVI is related to effective dot area (EDA) as follows: TVI is equal to EDA minus the input file tint value. For example, if the input file tint is 50%, and the printed result has 70% EDA, then the TVI is 20%.