

## Correlations between composition and crystallinity of LDPE/HDPE blends

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**Abstract** DMTA, DSC, WAXS and density were used to quantify the crystallinity and crystallite dimensions of specific grades of LDPE/HDPE blends. In virtue of the close agreement of the results obtained with the three techniques, an average degree of crystallinity was calculated, allowing the establishment of quantitative relationships between composition and crystallinity, and shifting of the  $\alpha$ -relaxation. Dimensions along the 110 and 200 planes were also correlated with shifting of the  $\alpha$ -transition.

**Keywords** HDPE · LDPE · Polyethylene blends · Morphology · DMTA