



POLYETHYLENE ADDITIVE OPTIMIZATION HDF-5116

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Antioxidants are not free, but they are affordable. Essentially, the appropriate type and level of antioxidants must be selected in order to stabilize the polymer adequately for a particular use. Testing is needed to validate the use of a particular antioxidant system before a product is commercialized. Initial testing frequently involves melt compounding of the polymer with various formulations composed of different additive systems or mixtures. Color, appearance, and retention of molecular weight are common measures. Long-term thermal stability is carried out usually in ovens set at elevated temperatures to accelerate the aging process. Color development and retention of physical properties are measured as a function of time at that test temperature. Varying extrusion temperatures and changing shear rates afforded by the processing equipment are also useful measurements. Testing the ancillary properties is also important such as volatility, compatibility, color stability, physical form, propensity to form transformation products with taste or odor, regulatory issues associated with products used in food packing, and in-polymer performance versus cost. We come out with the optimum antioxidant and lubricant formulation for HDF-5116 and grade. This article gives brief description regarding lab. Tests which was done, results and the gives the recommended optimum additives dosage for HDF-5116