

Preface

IMAGINE PLACING a layer of a low viscosity liquid mixture made up of monomeric and oligomeric compounds on a substrate, shining a beam of ultraviolet radiation on the liquid, and then in less time than it takes to snap your fingers—effectively, instantaneously--having the entire liquid mass turn into a solid, cross-linked, hard, tough coating with both functional and decorative properties. Sound impossible? Sound magical—like Mary Poppins (to the older generation) or the X-Files (to the younger or younger thinking generation)? Certainly it does! It sounds too good to be true, or as if it were magical in nature. However, it is merely a brief, popularized description of the coating technology known as “radiation curing” or the more limiting term, “photocuring.” This technology that deals with using the substrate as your polymerization vessel will be described in detail, but in an understandable manner, in this book. Reading it will give one a good understanding of this topic and enough knowledge to begin formulating radiation-curable inks, coatings, and sealants.