ON CERTAIN CLASSES OF P-VALENT FUNCTIONS INVOLVING DZIOK-SRIVASTAVA OPERATOR

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Abstract. This paper gives some inclusion relationships of certain class of $p-$valent functions which are defined by using the Dziok-Srivastava operator. Further, a property preserving integrals is considered. Some of our results generalize previously known results.

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1. Introduction

Let $A(p)$ denote the class of all functions of the form:

$$f(z) = z^p + \sum_{n=1}^{\infty} a_{n+p} z^{n+p} \quad (p \in \mathbb{N} = \{1,2,3,...\} ; z \in U), \tag{1}$$

which are analytic and $p-$valent in the open unit disc $U = \{z \in \mathbb{C} : |z| < 1\}$ and let $A(1) = A$.

For function f given by (1) and g given by

$$g(z) = z^p + \sum_{n=1}^{\infty} b_{n+p} z^{n+p}, \tag{2}$$

the Hadamard product (or convolution) of f and g is defined by

$$(f * g)(z) = z^p + \sum_{n=1}^{\infty} a_{n+p} b_{n+p} z^{n+p} = (g * f)(z). \tag{3}$$