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Factors influencing  $S'$  in the coating window for curtain coating.

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Today, the theory behind the coating window for curtain coating is rather well known. However, to find the absolute limit before pure air entrainment sets in,  $S'$  is always empirical and often many trials are necessary to find this point for the product in question to be coated. From an industrial point of view it is of highly interest to be able to predict  $S'$  by simulation, due to time saving. This point depends on physical coating factors, such as, impact angle and curtain height. But also, the whole system involved in the impact zone where the curtain touches the passing web. Factors playing a role here are surface roughness and surface chemistry, the chemistry and rheology of the solution, and the composition and pressure of the environment. The charge and the electrical field surrounding the impact point are also significant for the coating window and its  $S'$ . In the following study  $S'$  as a function of positive and negative impact angles has been investigated, where high wet lay downs are involved.