

The Fluidity and Sprayability Characteristics of -200 Mesh Sulfur Powder

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Abstract

To study the fluidity and sprayability characteristics of sulfur powder, powder comprehensive characteristic tester was utilized. The results show that the fluidity was in not good level and prone to be sprayable. With the moisture content less than 1.2%, the fluidity property was also in not good level, and continuous increase in the moisture content or the charge-to-mass ratio tended to trigger off bad or even worse fluidity. When the moisture content of the wet basis was less than 0.7%, the sulfur powder was prone to spray. Raising the moisture content from 0.7% to 1.5%, or increasing the charge-to-mass ratio from -6.9 to -11.4 nC[?]g-1 also led to may be sprayable tendency, while a further increase in one of the two parameters no sprayable tendency. It can be concluded that in the chemical industry, special treatment is needed for sulfur production equipment to improve its fluidity and sprayability.

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