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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 21657-2008

**Code of dust control in the compounding workshop of the
rubber manufacture**

橡胶加工炼胶车间防尘规程

(English Translation)

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Foreword

The standard Chapter 5, Chapter 6, Chapter 7 are mandatory, the rest are recommended.

This standard was proposed by the State Administration of Work Safety.

This standard produced by the National Standardization Technical Committee on Security.

This standard is mainly responsible for drafting unit. Beijing Rubber Industry Research and Design Institute, Haohua Engineering Limited.

1 Scope

This standard specifies the terms and definitions of the main hazards in the production of rubber processing plant mixing dust, dust generation and generation, and to Seeking measures to prevent dust hazards, control measures to prevent dust hazards, dust detection.

This standard applies to project design, management and product design all kinds of rubber machinery rubber processing rubber mixing plant, installation and manufacturing.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including

errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 16297 Air Pollutant Emission Standards

3 Terms and Definitions

Mixing the dust flying in the process floor space of various organic and inorganic powder complexing agent.

Improve the supply of production, the working environment of fresh outdoor air and local exhaust ventilation local exhaust dirty air and dust contained in the air Clean indoor air to be discharged from the dusty air, in order to create a safe, sanitary conditions of the ventilation system.

The dust cover, vent pipe, dust collector, fan and other components, can be directly discharged dust directly from the generating source, air and dust After purification into the atmosphere, to prevent dust pollution of the environment inside and outside the workshop ventilation system.

By the exhaust hood, exhaust pipe, exhaust fan and other components, can be directly discharged dust directly from the generating source, to prevent the pollution of air operations around ventilation system.

An apparatus capable of dusty air purification treatment.

4.1 Dust generation

a) carbon black in the solution package, transport, weighing, mixing materials to produce carbon black dust cast process.

b) powder dust generated in other ingredients, weighing and mixing process.

The main hazards of dust generated 4.2 Mixing rubber dust generated during the production of lung disease caused by the human body, can lead to black and mixed pneumoconiosis, affect the human body health.

5 Requirements

5.1

new construction, renovation and expansion of business site location should be away from residential areas, schools, hospitals and densely populated areas, and is located in the protected object the summer wind windward side of the minimum frequency shall set a reasonable CHP perennial dominant wind direction between the downwind side, businesses and residential areas distance.

5.2

mixing plant should be located in buildings other plant perennial dominant wind downwind side.

5.3

Selecting advanced production technology, the process should be closed and automation.

Workshop dust ventilation should be within 5.4 measure dust purification after reaching GB 16297 emissions requirements.

5.5

workplace air of carbon black dust, other dust allowable concentrations of 4mg/m³ and 8mg/m³.

5.6

in the workshop storage bags, crates, barrels of powder should be stored in a predetermined place, the storage location must be clearly marked.

5.7

workshop walls, ceiling and floor should be smooth, easy to clean. Forbidden to use compressed air blowing, sweeping dust. Never use water to rinse Face, mobile cleaning equipment should be used.

5.8

workshop should be located lounge, cloakroom, changing rooms, showers, baths should not be located. Overalls, casual sub-cabinet; lounge positive. shower, Number of urinals, etc. should be set according to the number of workers and the sex ratio.

5.9

room should be kept clean, fresh air. Food and utensils should be placed in the lounge.

5.10

cloakroom, lounge, toilets or wash sink manual switch means automatic switch should be set in place.

5.11

Cleaning System maintenance should be regularly cleaned to determine the period.

6 Measures to prevent dust hazards

6.1

parts of carbon black from feeding to feeding mixing should be used for custody transfer (such as pneumatic conveying, etc.), automatic weighing, automatic feeding device.

6.2

should adopt the granulated carbon black, carbon black, carbon black, should adopt the package space and tanker transport. Unpacking feeding should be located at the dust removal system, the solution should be a single charter Single room, keeping a negative pressure. Waste bag storage areas clearly marked and packaging facilities, to prevent the transit of carbon black dust scattered implement waste Bags recycling options.

6.3

powder processing and ingredients should be in a separate room, the place of operation should be located dust removal system. When the mix reaches 10000t/a, with a small material Material should adopt the automatic weighing.

6.4

When the open mill for mixing should take stringent dust control measures. The auxiliary mixer, cutting pipe and other dust generating sources should be located at the dust removal system.

6.5

mixer when artificial feeding, such as carbon black powder should be used polyethylene packaging in bags into the machine.

6.6

tableting machine should be in accordance with national emission standards for dust, dust and exhaust port height selection.

6.7

air inlet should be located on the upwind side of the perennial dominant wind direction, and the horizontal distance between the air inlet and exhaust outlet should be greater than 10m, higher than the inlet air vents Mouth 6m above.

6.8 Personal hygiene and protection

6.8.1

artificial ingredients, when feeding and maintenance of dust removal system and the exhaust system, the operator should wear good particle respirator, gloves, dust-proof overalls and other personal protective equipment.

6.8.2

should be the proper use of personal protective equipment and regular cleaning to keep clean.