移 **段 科 技** 生产技术 2023 年第 21 卷

#### 3 结论

(1) 喷涂工艺的确定是所有环节管控的前提,喷涂工艺直接影响着涂层厚度和涂层与硅橡胶基材的附着力。本试验确定的硅橡胶喷涂产品最佳喷涂工艺参数为: 喷枪口径 0.5 mm, 喷涂压力 0.7~0.8 MPa, 走枪速度 40~60 cm • s<sup>-1</sup>, 喷涂距离 20~25 cm。

(2)随着喷涂产品需求日益增长,生产企业对喷涂施工现场的质量管控需正规化,严格有效的管控措施是确保喷涂质量的必要手段。喷涂现场的过程质量管控包括喷涂前准备环节、喷涂施工环节、喷涂后硫化环节等的管控,每个环节的质量管控都是至关重要的,都决定了硅橡胶喷涂产品

的喷涂质量。

### 参考文献:

- [1] 王若丞,贺云逸,康洪玮,等. 电缆接头绝缘用硅橡胶热老化及超声特性[J]. 高电压技术,2021,47(9):3181-3188.
- [2] 谢忠麟,马晓,吴淑华. 高性能特种弹性体的拓展(三)—硅橡胶(续完)[J]. 橡胶工业,2021,68(12):948-958.
- [3] 范海波. 双组分硅橡胶防热涂料自动喷涂工艺研究[J]. 涂料工业, 2020.50(1):57-62.
- [4] 梅会波. 喷涂过程参数及涂料微粒化对涂膜外观的影响[J]. 重庆电镀与涂料涂装,2007,89(2):38-40.
- [5] 张瑞珠. 聚氨酯喷涂工艺参数对涂层性能的影响[J]. 聚氨酯工业, 2014, 29(1):39-41.
- [6] 陈英,李峰,王鑫,等. 基于静电粉末喷涂EP-ETFE-SiO<sub>2</sub>复合涂层的制备与耐腐蚀性能研究[J]. 塑料科技,2021,49(6):19-23.

收稿日期:2023-04-10

## Spraying Process and Quality Control of Silicone Rubber Spray Products

YE Changqing, YANG Kan, ZHANG Gui, XING Yuzhuo (Xi'an Sunward Aeromat Co., Ltd, Xi'an 710025, China)

**Abstract:** The spraying process of silicone rubber spray products was studied, and the key points of process quality control of the spraying site were analyzed. The optimal spraying process parameters for the silicone rubber spray products determined by experiments were as follows: the nozzle outlet diameter of the spray gun was 0.5 mm, the spraying pressure was 0.7 $\sim$ 0.8 MPa, the spraying speed was 40 $\sim$ 60 cm • s<sup>-1</sup>, and the spraying distance was 20 $\sim$ 25 cm. The process quality control of the spraying site included control in the preparation, spraying and vulcanization stages. In the spraying stage, specifically, process quality control was implemented through all the steps including the cleaning of the workpiece, masking the area where spraying was not needed, determination of the spraying parameters, self-inspection and defect elimination after the spraying. The key points of the quality control in each stage were summarized, and the coating quality of silicone rubber spray products was improved.

Key words: silicone rubber; spraying; process parameter; quality control

## 《轿车轮胎性能室内试验方法》等4项 新制修订国家标准即将实施

日前,国家市场监督管理总局(国家标准化管理委员会)发布2023年第2号公告,批准535项推荐性国家标准。GB/T 4502—2023《轿车轮胎性能室内试验方法》(代替GB/T 4502—2016)、GB/T 30195—2023《轿车轮胎耐撞击性能试验方法摆

锤法》(代替GB/T 30195—2013)、GB/T 42519—2023《橡胶 用于表征液体对硫化橡胶影响的标准 参比弹性体(SREs)》、GB/T 42545—2023《核电厂橡胶衬里工程腐蚀控制全生命周期通用要求》4项橡胶行业相关新制修订国家标准将于2023年12月1日实施。

(本刊编辑部)

# 欢迎向《橡胶科技》《橡胶工业》《轮胎工业》投稿