

附件 3

IAQ QUALITY SUSTAINABILITY AWARD 2023 - ONE-PAGE SUMMARY

(请用中、英文同时填写以下表格)

The One-Page Summary should be filled in and submitted as Appendix 1 to your Application. It will also be published on the IAQ Quality Sustainability Award Homepage; <http://iaqaward.com>. The length of this document must not exceed 1 page.

Project and contact details		
The name of the quality sustainability project (max. 100 characters)		
Research on the application of SGMW low-carbon water-based technology		
Contact Person	Telephone	Email
Yan Wei	+13627721341	yan.wei@sgmw.com.cn
Organisation(s), country, where the project-members are working, including Web-page links		
Saic-gm-wuling Automobile Co., LTD., China http://www.sgmw.com.cn		

Project description
<p>Global carbon emissions are increasing year by year, in the automobile manufacturing industry, the traditional automobile painting process is one of the most complicated processes, but also one of the most carbon emissions, especially the color process, a huge waste of energy, contrary to the United Nations concept of sustainable development. Wuling brand has 65 years of history in China and has become the representative of China's traditional automobile enterprises. From 2018 to 2022, we will complete the low-carbon transformation of automobile coating materials, build an all-water-based green production line, subvert the traditional coloring process and materials to create SGMW's low-carbon water-based paint coloring process system, and use new technologies and equipment to improve energy efficiency, reduce carbon emissions by 30,000 tons/year, and reduce carbon emissions by 35%! In the process of this project, a large number of outstanding engineers emerged, learning to apply PFEMA, MSA, SPC, QC, RED-X, 6σ and other quality tools to quickly analyze the nature of the problem and consolidate the solution. During the project, 47 people obtained intermediate engineer titles, 8 people obtained senior engineer titles, completed more than 400 QC activities, 6 people obtained Red-X primary certification, 2 people obtained intermediate certification, 4 people obtained Six Sigma green Belt certification, published 23 papers, applied for 5 patents, etc., cultivated a group of highly skilled talents, and created a senior team for the company's follow-up exploration of green sustainable development.</p>

Project leverage potential	Picture/Image describing the project																		
<p>The low-carbon transformation of automotive coating materials is one of the main roads for the green development of the global automotive industry coating process, and it is also increasingly popular in the industry. However, the comprehensive improvement of the innovative color matching process on the basis of the low-carbon water-based process is a big step for China Wuling to move towards low-carbon, energy-saving and sustainable development. The results of the project can be shared by the industry through our papers, patents and other materials.</p>	<p>SGMW最近5年碳排放量数据 (万吨)</p> <table border="1"> <thead> <tr> <th>年份</th> <th>SGMW总</th> <th>SGMW单台碳排放 (吨/台)</th> </tr> </thead> <tbody> <tr> <td>2018年</td> <td>60.96</td> <td>0.25</td> </tr> <tr> <td>2019年</td> <td>51.87</td> <td>0.215</td> </tr> <tr> <td>2020年</td> <td>44.05</td> <td>0.208</td> </tr> <tr> <td>2021年</td> <td>45.18</td> <td>0.202</td> </tr> <tr> <td>2022年</td> <td>38.41</td> <td>0.19</td> </tr> </tbody> </table>	年份	SGMW总	SGMW单台碳排放 (吨/台)	2018年	60.96	0.25	2019年	51.87	0.215	2020年	44.05	0.208	2021年	45.18	0.202	2022年	38.41	0.19
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