

NOROO

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NOROO Quarterly Magazine

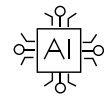
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SPECIAL THEME
AI & NOROO



SPECIAL THEME



AI & NOROO

- 04 INTERVIEW NOROO'S COLOR SOLUTIONS WITH AI
AI携手NOROO打造色彩解决方案
- 11 VIEWPOINT TECHNOLOGY WITH HEART, AI AT NOROO
倾注匠心的技术, NOROO的人工智能

NOROO PEOPLE



- 14 FOCUS ON NOROO 1 SAFE & TOGETHER WITH SEOL CHAE-HYEON & NOROOWA
SEOL CHAE-HYEON, VETERINARIAN AND AMBASSADOR FOR NOROOWA
NON-SLIP PET SPRAY AND NOROOWA VARNISH PET PAINT
安全同行Seol Chae-hyeon与NOROOWA
与Seol Chae-hyeon兽医共话NOROOWA防滑宠物喷雾与NOROOWA清漆宠物产品
- 18 FOCUS ON NOROO 2 A SAFE WORKPLACE, PROTECTED BY US
ESQM TEAM'S SMART SAFETY INNOVATION
安全的工作场所由我们来守护ESQM组的智能安全创新
- 22 NEW PRODUCTS NOROO PAINT STRENGTHENS ITS RESPONSE TO THE
HIGH-PERFORMANCE, RECOATING, AND WATER-BASED
PAINT MARKETS WITH NEW BUILDING PRODUCTS
STRENGTHENING A PRODUCT PORTFOLIO THAT COVERS EVERYTHING FROM
SPECIALIZED ENVIRONMENTS TO GENERAL CONSTRUCTION
NOROO涂料凭借泛建筑新产品强化对高性能、重新粉刷、水性涂料市场的应对能力
从特殊环境到一般建筑,全方位强化产品组合
- 24 NEWS BRIEFING



SPECIAL THEME

AI & NOROO

Artificial Intelligence (AI) draws on vast amounts of data. It analyzes a wide range of conditions and variables, helping to produce possible outcomes across different scenarios. As AI makes complex workflows simpler and supports more refined decision-making, its use is spreading rapidly across industries. Companies are increasingly integrating AI into customer service, enabling them to respond quickly to a wide range of customer needs. NOROO is moving in step with these changes, developing and launching AI-powered services that enhance customer satisfaction while improving efficiency on-site.

AI(人工智能)是一种基于海量数据,通过分析多种条件与变量,帮助推导出多种可能性结果的技术。AI技术能够简化复杂的工作流程,支持更精准的决策,其应用范围正迅速扩展至全行业。尤其是在能够快速响应客户多样化需求方面,众多企业正纷纷将AI技术引入客户服务业务。NOROO亦顺应这一趋势,开发并推出了运用AI技术的服务,在提升客户满意度的同时,也提高了现场工作的效率。



NOROO's Color Solutions with AI

Artificial Intelligence (AI) no longer belongs to some distant future. What once felt possible only in films has now become part of everyday life and the workplace. As AI becomes more deeply embedded in daily life, companies are using it to introduce new services and strengthen their competitiveness. NOROO Paint & Coatings is moving in step with this shift, bringing AI into its color design expertise and color-matching data built over many years. Part of this effort includes NOROO Smart Color for apartment repainting design, along with NOROO Smart Mix for color matching. The teams behind both services shared the rationale for their development and the value they deliver.

AI携手NOROO打造色彩解决方案

如今, AI已不再是陌生的未来技术。曾几何时, 它还是只出现在电影中的技术, 而如今, AI正自然而然地渗透到我们日常生活与工作环境的方方面面。在这一变革中, 各企业纷纷借助AI推出新型服务, 不断提升自身竞争力。NOROO涂料同样紧跟时代步伐, 将长期以来积累的色彩设计与调色数据与AI技术相结合, 推出了相关服务。这便是助力公寓重新粉刷设计的NOROO Smart Color, 以及支持调色业务的NOROO Smart Mix。我们采访了开发这些服务的团队, 深入了解了其开发背景与意义。



APARTMENT REPAINTING DESIGN, REVIEWED IN FIVE MINUTES NOROO SMART COLOR

NOROO Smart Color is an AI-based service that lets users simulate apartment repainting designs. In the past, proposing an apartment repainting design to a client involved several steps. The sales team would first photograph the apartment, then the Color Support Team would prepare an initial draft based on those images. Once the draft was shared with the client, feedback was gathered, and revisions followed. The process took considerable time, and in the early stages, there were practical limits to comparing a wide range of design options. NOROO Smart Color was developed to address those challenges as an AI-based color simulation service. NOROO Smart Color generates a draft in just five minutes once a photo is uploaded, and the desired color tone and design are selected. That means the design can be reviewed on-site with the client, allowing for the comparison of options in a more intuitive way and enabling revisions as needed. More attempts are now being made across architecture and painting to apply AI





to visualization. Even so, very few have taken shape into usable forms for real work applications. NOROO Paint & Coatings has moved ahead of the curve and brought this possibility closer to reality.

“AI is being applied across a wide range of industries, but for a service to work in the field, accuracy and speed matter most. Apartment buildings vary widely in structure, and each must be accurately rendered in elevation drawings. Color, pattern, and other design elements also need to be applied in a stable way. In response, we organized color and design elements systematically so the AI could learn them with precision.” That was how Assistant Manager Lim Se-hyeon of the Color Design Team explained it, with Assistant Manager Yun Tae-hyeon adding further insight. “One of the biggest technical challenges was delivering high-quality images while preserving the actual structure of Korean apartment buildings. Our goal was to create a service that could truly be used on site, and we spent two years building it step by step.”

After the development process, NOROO Smart Color was introduced in late January, making it all the more meaningful as an AI service tailored to Korea’s apartment repainting environment. Team Manager Cho Ji-hyeon explained, “Similar technologies do exist, but cases that have been trained on Korean apartment structures and developed into an actual service are rare.” The level of quality was possible because NOROO Paint & Coatings has steadily built up data on apartment repainting design in Korea since the early 2000s. Drawing on rich, highly detailed



in-house data, NOROO Smart Color was designed to provide design results that reflect current trends and perform well in real-world settings. Team Manager Cho Ji-hyeon said, “One major strength is that we can show a draft right from the very first consultation with the client. Designers have also been able to cut down on the repetitive work that used to take so much time, allowing them to focus more on design review and on creating more polished drafts. This is not simply a service that generates images with AI. It was designed around the actual repainting workflow, which means it improves efficiency for both clients and the people doing the work. That gives us plenty of room to expand how it can be used going forward.”



5分钟内确认公寓重新粉刷设计 NOROO Smart Color

NOROO Smart Color是一项基于AI技术模拟公寓重新粉刷设计的服务。以往向客户提出公寓重新粉刷设计方案时,通常需由营业团队拍摄公寓照片,再由色彩支持团队制作初稿,然后营业团队将其传达给客户,并接收反馈进行修改。这一过程不仅耗时较长,而且在初期阶段充分比较多种设计方案也存在现实局限。为弥补这些不足, NOROO涂料开发了基于AI的色彩模拟服务——NOROO Smart Color。

使用NOROO Smart Color时,只需上传照片并选择所需的色调与设计,便能在5分钟内生成初稿。这样一来,便可在现场与客户一同直观地比较多个方案,边修改边讨论。最近在建筑与涂装领域,尝试将AI技术应用于可视化领域的案例虽有所增加,但能够真正落地用于实际业务的实例尚不多见。NOROO涂料在这一领域走在了前列。

“AI技术虽然正被广泛应用于多个行业,但要实现实务层面的服务化,准确性与速度最为关键。各种形态的公寓结构需要在立面图上得以精确呈现,色彩与图案等设计元素也必须能够稳定地体现出来。为此,我们对色彩与设计要素进行了系统化整理,确保AI能够进行精准学习。”色彩设计团队的林世玟主任对此进行了说明。随后,尹郁铉主任补充道:“在保留韩国公寓原有结构的同时,实现高完成度的图像质量,是我们面临的重要技术课题。我们以可在现场实际运用的服务为目标,花费两年时间稳步筹备。”

经过这样的准备过程, NOROO涂料于今年1月底推出NOROO Smart Color。作为一款针对韩国公寓重新粉刷环境而专门优化的AI服务,其意义尤为重要。赵至贤组长解释道:“虽然存在类似的技术,但能够针对韩国公寓结构进行学习并以服务形式落地的案例并

不多见。”NOROO涂料自本世纪初起便持续积累韩国公寓重新粉刷设计数据,正是凭借这一基础,才得以实现如此高品质的AI服务。NOROO Smart Color立足于具体而丰富的自有数据,同时反映最新趋势,旨在得出可供实际应用的设计成果。

赵至贤组长表示,“在与客户初次商谈的阶段就能直接展示设计方案,这是一大优势。设计师也能从以往反复耗时的工作中解脱出来,集中精力进行设计研讨与高完成度方案的制作。这并非单纯通过AI生成图像的服务,而是根据实际重新粉刷业务流程设计、为提升客户与实务人员双方效率而打造的服务,因此未来有望进一步拓展其应用范围。”

拥有更多数据的全新“眼睛” NOROO Smart Mix

NOROO引入AI技术的领域不止于此。NOROO涂料建筑技术1组是为全国各地特约店提供所需颜色配比数据的部门。特约店为了制作目标颜色的涂料,会使用测色仪分析色彩并进行调色作业,但并非总能达到预期效果。因此,每天接收到的要求提供更精准配比数据的咨询量,少则120件,多则可达200件。

林仁泽课长解释道:“接到咨询后,我们会通过实验进行颜色配比,并实际进行涂装,确认结果后再提供数据。”他表示,“如果一次未能达到目标,还需要经过多次修改与验证,因此这是一项比想象中更耗时的工作。”

为了减少此类调色实验的重复操作以及特约店的等待时间, NOROO涂料引入了基于AI的自动调色服务——NOROO Smart Mix。林仁泽课长表示,“为了提升各方效率,我们考虑利用AI来提供数据支持。”他补充道,“以前咨询后需要等待一段时间才能拿到结果,现在只需点击几下,就能确认颜色配比数据。”



A NEW “EYE” BUILT ON MORE DATA

NOROO SMART MIX

NOROO has introduced AI in another area as well. NOROO Paint & Coatings' Architectural Technology Team 1 handles requests from agencies across the country for color formulation data. At authorized dealers, staff use colorimeters to analyze color and carry out color matching to produce paint in the desired shade, but the intended result is not always achieved. As a result, requests for more accurate formulation data range from around 120 cases a day to as many as 200.

Manager Lim In-taek said, “When a request comes in, we run color mixing tests, apply the paint itself, check the results, and then provide the data. If the color is not right on the first try, the process often takes more time than expected because it has to go through several rounds of adjustment and verification.”

That is exactly why NOROO Smart Mix, an AI-based automatic color-matching service, was introduced. It was developed to reduce the number of repeated color-mixing tests and shorten waiting times for agencies. We began exploring AI-based data support to improve efficiency for everyone. In the past, you had to wait for some time after making a request. Now, you can check color formulation data with just a few clicks.”

The road to building the service was anything but simple. The process involved one challenge after another,

from aligning real-world color perception with the data to converting that data into a form suitable for AI learning. In the field, customers, agencies, and workers all judge color with the naked eye. That is why what matters is not just a numerical match, but a color that looks naturally identical in real use. Manager Lim In-taek said, “Even when two colors look the same, the measured values can vary depending on the paint's gloss level, surface condition, or material. The biggest challenge was figuring out how to align the color people see with the data behind it.” To narrow the gap, the development team began by converting and refining the data into a format suitable for AI training. They created paint samples under a range of conditions, measured them repeatedly, and compiled the data. At the same time, they established new standards to reduce the gap between measured values and actual color. They paid close attention to the fact that the same color can look different in different environments. Taking this into account, they focused on strengthening the algorithm's reliability through repeated comparison and verification across a wide range of conditions.

Building the data took about two years. The work went far beyond simply accumulating data. It had to be verified and refined repeatedly to connect with real color-matching results in practice. In many ways, creating NOROO Smart Mix meant building another precise

“eye” made of data.

Since launching in February, NOROO Smart Mix has continued to learn and improve as its data volume grows. Assistant Manager Lee Je-hui explained, “AI does not stop evolving once the system is built. It improves through continuous learning from data. Architectural Technology Team 1 plans to keep advancing NOROO Smart Mix by improving data precision, allowing us to deliver results that are even closer to real-world conditions.”

TOWARD BETTER AI EXPERIENCES AND NEW STANDARDS

After the interview, the Color Support Team and Architectural Technology Team 1 gathered for a group photo. They began in different areas—one in color design proposals, the other in color matching. Yet NOROO Smart Color and NOROO Smart Mix share the same purpose. Both were built on years of accumulated color and color-matching data, designed to reduce repetitive work, deliver refined results more quickly, improve customer convenience and satisfaction, and in-



这一服务的实现过程绝非易事。从实际颜色识别与数据的匹配,到将其转化为适合AI学习的数据格式,一道道难题接踵而至。在实际现场中,由于客户、代理店、操作人员均通过肉眼判断颜色,因此,比起单纯在数值上达到一致,实现“肉眼看上去自然感觉相同的颜色”显得更为重要。林仁泽课长解释道,“即使看起来是相同的颜色,不同涂料的亮度、表面状态或材质都会让测量值产生差异。如何将人眼所见的颜色与数据值匹配起来,是我们面临的课题。”为了缩小这种差异,开发团队首先着手将数据转化为可供AI学习的形态,并进行再加工。他们在多种条件下制作调色试片,通过反复测量积累数据,并重新设定标准以缩小测量值与实际颜色之间的差距。特别是考虑到即便是同一颜色,也可能因环境不同而呈现差异,团队并行开展了多种条件下的数据对比与验证,集中精力提升算法的可靠性。





crease field efficiency. Their value goes beyond replacing existing tasks. For customers, they open the door to NOROO Paint & Coatings' advanced technology. For those on the job, they create room to focus on higher-value work.

NOROO Paint & Coatings plans to continue advancing its AI-based services and to expand the value of its color technology in more diverse ways. By combining technology with practical insight, NOROO Paint & Coatings is creating better experiences and sets new standards, pointing toward an even stronger future.

这一数据构建过程耗时长达两年。这是因为并非单纯地积累数据，而是需要反复进行验证与校准，确保其能与实际调色结果相衔接。打造NOROO Smart Mix，就是打造一双由数据构成的、精准的“眼睛”。

这项服务于今年2月启动，目前正持续扩充数据量，不断进行学习与优化。李齐熙主任解释道：“AI并非一劳永逸，其结构在于通过持续的数据学习不断发展。建筑技术1组今后也将致力于提高数据精度，持续优化NOROO Smart Mix，以提供更贴近实际使用环境的结果。”

迈向更优体验与新标准的AI服务

采访结束后，色彩支持小组与建筑技术1组一同站在了镜头前。虽然分别始于色彩设计提案与调色这两个不同的领域，但NOROO Smart Color与NOROO Smart Mix均基于多年积累的色彩与调色数据，旨在减少重复性工作、快速导出精准结果，从而提高客户的便利性与满意度，并提升业务现场的工作效率——从这个意义上讲，两者殊途同归。这不仅是对既有业务的简单迭代，更将带来多方面的显著效果：让客户体验到NOROO涂料领先的技术实力，同时使工作人员能够专注于创造高附加值的工作。

NOROO涂料今后将继续推进AI服务的持续优化，以更多元化的方式拓展色彩技术的价值。技术与经验相结合的全新尝试，将打造更卓越的体验与新标准。NOROO涂料的明天，值得期待。



Technology with Heart, AI at NOROO

Here is a closer look at the various AI-powered services introduced by NOROO. Data and expertise accumulated over many years are now combined with AI technology to instantly simulate repainted apartment exteriors on mobile devices and quickly generate precise color-matching data. Chatbots across the group respond to a wide range of employees' questions, while drones and CCTV help keep worksites safe. Although the two letters "AI" may bring machines to mind, behind them lies the time and effort NOROO has built up, its genuine commitment to customers, and its drive toward a better future.

倾注匠心的技术，NOROO的人工智能

本文将深入观察NOROO引入人工智能技术的各项服务。凭借长久以来积累的数据和专业经验，与人工智能技术相结合，即可通过手机即时模拟重新粉刷后的公寓效果，并快速得出精准的调色数据。集团公司各处的聊天机器人能够解答员工的各种疑问，无人机和监控摄像头则守护着现场的安全。“AI”这两个字母往往让人联想到机器，但其背后，凝聚着NOROO倾注的时间和努力、对客户的赤诚之心以及迈向更美好未来的挑战精神。



NOROO SMART COLOR

NOROO Smart Color is an AI-powered service that supports apartment repainting design, and has been developed as a dual system consisting of a mobile app that sales staff can use directly on site and a web-based platform through which the design team can carry out more specialized work.

When a staff member takes a photo of an apartment on site and selects colors and patterns, AI analyzes the building structure, generates the exterior elevation, and applies the selected colors and patterns to pro-

duce a design draft. In the process, it accurately identifies variables such as narrow wall sections between windows and exterior units, completing the elevation with precision, while automatically removing visual obstructions such as landscaping trees and vehicles that block the building so that the application areas can be clearly identified. It takes less than five minutes to generate a design draft. The generated draft can be delivered to a designer, and in the web system, key elements such as walls and windows are automatically separated into layers, increasing work efficiency. Field staff who use this service are referred to as "AI Color Directors," and provide design drafts through NOROO Smart Color in response to a range of customer needs during the consultation process.



NOROO Smart Color

NOROO Smart Color是利用人工智能技术为公寓重新粉刷设计提供支持的服务,该系统分为两大部分:一是便于业务人员现场使用的手机应用程序,二是供设计组进行专业工作的网页系统。

在现场,负责人只需拍摄公寓照片并选择颜色与图案,人工智能便会自动分析建筑结构,完成外部立面图,并应用所选的颜色和图案生成设计方案。此时,人工智能可以精准识别窗与窗之间的薄

墙、空调外机等各种外墙结构的变量,从而完成外部立面图。同时通过自动校正功能移除遮挡建筑的景观树木、车辆等障碍物,确保施工位置清晰可辨。方案生成时间不到5分钟。生成的设计方案可转交给设计师,而在网页系统中,墙体、窗户等主要元素会自动按图层分离,从而大幅提升工作效率。使用该服务的现场负责人被称为“人工智能色彩总监”,在客户咨询过程中会根据客户多样化的需求,利用NOROO Smart Color提供设计方案。

NOROO SMART MIX

NOROO Smart Mix is an AI-based service that provides paint color formulation data and is available through Paint Pro, a dedicated website for distributors. When a user enters the paint product, specification, and color, the service automatically generates the colorant formulation ratio that matches those conditions.

In particular, it provides both high-chroma colorant formulations that prioritize color accuracy and general colorant formulations designed with economy and efficiency in mind based on similar color standards, allowing users to choose the optimal color-matching strategy depending on the situation. On the formulation results screen, users can visually compare the target color with the predicted color and check the estimated color difference value, along with various other details. It also supports color-matching history management, automatically saving formulation results by distributor so that past data can be easily used for repeat tasks, while also allowing the results to be printed out and applied immediately on site. NOROO Smart Mix has currently been launched initially as a service dedicated to water-based paints and is expected to be expanded in the future to cover a wider range of product categories, including solvent-based paints.



NOROO Smart Mix

NOROO Smart Mix是一项基于人工智能的服务,可以提供涂料颜色调配数据,能在特约经销店专用网站“Paint Pro”内使用。用户输入涂料产品、规格和颜色后,系统将自动导出符合该条件的调色剂配比。

尤其是,该服务同时提供将色准度放在首位的高彩度调色剂配比,以及在相近颜色标准下兼具经济性和效率的普通调色剂配比,方便用户根据情况选择最佳调色策略。在配比结果页面,可以直观对比目标颜色和预测颜色,并查看预估色差值及多种相关信息。该服务还支持调色记录管理功能,各特约经销店的配比结果会自动保存,便于在重复作业时轻松调取过往数据。另一大优势是配比结果可打印输出,直接在现场使用。目前,NOROO Smart Mix作为水性涂料专用服务已率先推出,预计今后将扩展至包括油性涂料在内的更多产品系列。

NORI, THE HR CHATBOT

Last March, the HR team at NOROO Holdings introduced an AI chatbot service that automatically responds to key internal inquiries related to payroll, annual leave, benefits, company regulations, and processes. Named “NORI” through an internal vote with the idea of creating a friendly and approachable chatbot companion, the chatbot provides accurate answers based on internal policies and helps improve work efficiency

HR聊天机器人NORI

NOROO控股股份有限公司人事组于今年3月引入了人工智能聊天机器人服务,可自动回复关于薪资、年假、福利、规章制度及流程等公司内部主要咨询问题。这款聊天机器人以“亲切舒适的聊天机器人朋友”为宗旨,经公司内部投票取名为“NORI”。它基于公司内部规章制度提供准确答复,对于模糊或需要解释的咨询,则会引导至相关部门,从而提高工作效率。

NORI可以提供多种咨询服务,包括人事相关事宜、公司内部规章制度及流程、电脑更换申请、会议室预约、故障报修等。它能从复杂内容中提炼出核心要点,并根据问题意图提供相关表格或链接。

by directing ambiguous or interpretive questions to the relevant department.

NORI can handle not only HR-related inquiries but also a wide range of questions concerning internal regulations and procedures, PC replacement requests, meeting room reservations, and system issues. For more complex matters, it summarizes only the key points and can also identify the intent behind a question, directing users to the relevant forms or links. Its multilingual support in English, Japanese, and Chinese has also broadened its usability for foreign employees.

NORI can be accessed through the company’s internal portal, as well as via Copilot in Teams, without any separate installation. It also supports a mobile app, making it available anytime and anywhere. NOROO Holdings plans to further enhance and stabilize the service by June, then gradually expand it across all affiliates by the end of this year. NORI is expected to establish itself as a digital colleague that supports employees in their work more conveniently.



此外,还支持英语、日语、中文等多种语言,以便外籍员工使用,由此扩大了使用范围。

NORI无需另行安装,可以通过公司内部门户网站、Copilot及Teams使用,同时支持手机应用程序,使用时不受时间和地点的限制。NOROO控股股份有限公司计划于6月之前完成服务优化与稳定化,之后在2026年年底前逐步推广至所有子公司。NORI有望成为数字同事,为员工的工作提供更便捷的支持。



AI DRONES AND VIDEO MONITORING SYSTEMS

NOROO Paint’s ESQM Team, which works to prevent serious

industrial accidents and safety incidents, is also making active use of AI technology. Its KakaoTalk-based chatbot provides immediate answers to questions on safety and environmental regulations, training, and safety rules, while on site, AI drones are deployed to inspect hard-to-reach blind spots such as smokestacks and rooftops. These drones are equipped with thermal imaging sensors, helping to detect and prevent fire risks. NOROO Paint is also preparing to introduce a video monitoring system that uses AI to analyze CCTV footage in real time and immediately issue alerts when it detects insufficient safety gear, violations of safety rules, or safety incidents involving workers.

In this way, the ESQM Team’s AI technologies help identify a

range of on-site risks in advance and support rapid a response when incidents occur. What makes NOROO Paint’s ESQM system especially meaningful is that, although it originated from the team’s own ideas and was implemented at relatively low cost, it has proven effective in improving safety at the worksite.

人工智能无人机与影像管制系统

致力于预防重大灾害及安全事故的NOROO涂料的ESQM组也在积极利用人工智能技术。基于KakaoTalk的聊天机器人可即时回答关于安全环境法规、教育、安全守则等问题;在现场,则通过放飞人工智能无人机,对烟囱、屋顶等难以接近的死角地带进行检查。该无人机搭载热成像传感器,还可预防火灾风险。此外,团队正准备引入一套影像管制系统,该系统利用人工智能实时分析监控摄像头拍摄的画面,一旦检测到作业人员未佩戴安全装备、违反安全守则或发生安全事故等情况,便会立即发出警报。

如此,ESQM组的人工智能技术能够提前识别现场的各种危险因素,并在事故发生时协助迅速应对。尤其值得一提的是,NOROO涂料ESQM组的系统源于团队自身的创意,尽管以相对较低的成本构建,却在提升现场安全性方面卓有成效,这一点具有重大意义。

Safe & Together With Seol Chae-hyeon & NOROOWA

SEOL CHAE-HYEON, VETERINARIAN AND AMBASSADOR FOR NOROOWA NON-SLIP PET SPRAY AND NOROOWA VARNISH PET PAINT

A home shared with pets calls for a different level of care, beyond what human standards alone can provide. For small animals, slippery floors and invisible chemical irritants can be an even greater burden because their bodies are more vulnerable. To address this, NOROO Paint & Coatings launched functional products developed with pets in mind. We spoke with veterinarian Seol Chae-hyeon, an advisor on the development of NOROO Paint & Coatings' Non-Slip Pet Spray and Varnish Pet Paint, about how the products respond to real needs from a pet's point of view.

安全同行Seol Chae-hyeon与NOROOWA

与Seol Chae-hyeon兽医共话NOROOWA防滑宠物喷雾与NOROOWA清漆宠物产品

人与宠物共同生活的空间，需要超越人类标准的细致考量。光滑的地面、无形的化学刺激，都可能给体型较小的动物带来更大负担。为此，NOROO涂料推出了专为宠物精心设计的功能性产品。兽医Seol Chae-hyeon参与了此次NOROO涂料“防滑宠物喷雾”与“清漆”宠物产品的研发咨询工作。我们荣幸邀请到Seol Chae-hyeon兽医，从宠物的视角探讨这些产品解决方案的意义。

NOROOWA NON-SLIP PET SPRAY FOR JOINT PROTECTION

“Through a broadcast called There Are No Bad Dogs in the World, I have visited countless homes outside my clinical work. Along the way, I kept encountering the same issues pet dogs face. Slippery floors were one. Joint problems caused by repeated slipping were another. Then there were accidents that happened when dogs chewed on furniture out of curiosity.”

In particular, veterinarian Seol Chae-hyeon pointed out cases of patellar luxation. The patella, also known as the kneecap, helps keep the femur and tibia properly aligned. When it slips out of place, it can cause pain and affect the way a dog walks. Most homes in Korea have smooth wooden floors, and many households also have small dogs with naturally weaker joints. Repeated slipping can lead to recurrent dislocations, placing strain on the bones, ligaments, and cartilage, eventually leading to a cruciate ligament rupture. “What makes it even more heartbreaking is that the condition can often be prevented, or at least slowed, by changing the environment. That was why I felt right away that Non-Slip Pet Spray was something that we absolutely needed.”

Dr. Seol Chae-hyeon had also tried slip-resistant flooring

and a range of mats firsthand. Yet, none proved to be a complete solution. Some lacked durability, some disrupted the interior, and others were simply too difficult to maintain. In some cases, dogs even mistook the mat for a place to relieve themselves. He added that overly soft mats can actually interfere with a dog's sense of balance. “The Non-Slip Pet Spray felt especially significant because it fills that very gap. You can use it in hallways where mats feel out of place, in front of the sofa, or in other small areas that are hard to cover. What matters



most for joint health is not softness, but enough grip to keep the paws from slipping.”

Developed by NOROO Paint & Coatings with technical expertise and advice from veterinarian Seol Chae-hyeon, NOROOWA Non-Slip Pet Spray comes in a spray formula that dries in just 15 minutes. Developed mainly with naturally derived rosin and water, the product is colorless, odorless, low-irritant, and certified as a Consumer Chemical Products Subject to Safety Verification.

“Passing strict safety certification means more than simply proving the product is safe. It means creating a space where pets can rest, play, and roll around in complete comfort. As someone who speaks for animals that cannot speak for themselves, I am truly glad to see a product like this, one that stays true to the essentials and is made with real care.”

NOROOWA VARNISH PET PAINT FOR CHEW PROTECTION

NOROO Paint & Coatings applied the same level of care to NOROOWA Varnish Pet Paint, with detailed input from veterinarian Seol Chae-hyeon. A bittering agent was added to help discourage chewing,



while ingredient safety and ease of use were carefully reviewed throughout development.

“A dog’s mouth is how they explore the world. That is why safety comes first, even when something ends up in the mouth. Just as important, the product needs to help them learn, ‘I should not chew this.’ The best training happens when they learn that for themselves.” To support that purpose, NOROOWA Varnish Pet Paint underwent strict pet-safety testing. Durability was doubled, resulting in an outstanding level of scratch resistance. The eco-friendly volatile organic compounds (VOC) formula was also developed with both pets and families in mind. It also provides daily water resistance and stain protection. “Once urine seeps into wood, removing the odor becomes extremely difficult. Using the product on door frames, baseboards, furniture, and similar surfaces can help prevent that kind of problem.”

Dr. Seol Chae-hyeon describes himself as “a lawyer for dogs.” By that, he means someone who speaks for what dogs are thinking. His standards for product advisory work are just as clear: “Would I feel comfortable using it on my own dog right away? And would it truly make a difference in real life? Those are the two questions that matter most.”

Dr. Seol Chae-hyeon says the greatest reward comes from seeing positive changes in pets’ everyday lives. He also shared his willingness to keep contributing to the growth of Korean pet products that can stand proudly on the global stage. With ambassador Seol Chae-hyeon’s veterinary and behavioral insights, combined with NOROO Paint & Coatings’ R&D capabilities, spaces shared with pets will become safer, more comfortable, and happier.



守护爱犬关节的NOROOWA防滑宠物喷雾

“我不仅在诊疗室，还通过《世界上没有坏狗狗》节目亲自探访了无数家庭。在这个过程中，我反复遇到了几个与宠物犬相关的问题。那就是地板湿滑及其引发的关节疾病，以及狗狗因好奇啃咬家具等物品而导致事故。”

Seol Chae-hyeon兽医特别提到了“膝盖骨脱位”这一问题。膝盖骨是稳定股骨与胫骨排列的骨头，一旦偏离原位，就会引发疼痛和步态异常。韩国的居住环境大多为光滑的木地板，加之饲养先天性关节脆弱的小型犬的情况十分普遍，频繁的滑倒会导致脱位反复发生，给骨骼、韧带和软骨带来负担，长期来看甚至可能引发十字韧带断裂。

“最令人惋惜的是，这类疾病完全可以通过改变环境来预防或延缓其恶化。所以当我听到防滑宠物喷雾这个想法时，我就觉得‘这款产品必须推向市场’。”

Seol Chae-hyeon兽医表示，他也尝试过施工型防滑地板或各种垫子，但均未能成为完美解决方案，因为存在耐久性、室内装修问题、打理麻烦，以及宠物将垫子误认为排泄场所等问题。他指出，过于柔软的垫子反而会降低平衡感。“防滑宠物喷雾”恰好填补了这些‘空白’，令我十分欣喜。它能够轻松改善那些不方便铺设垫子的过道、沙发前以及狭小缝隙空间。关节健康的关键不在于柔软，而在于防止脚掌打滑的摩擦力。”

NOROO涂料以自身创意与技术为基础，结合Seol Chae-hyeon兽医的专业建议，共同完成了“NOROOWA防滑宠物”系列。该产品采用喷雾剂型，仅需15分钟即可干燥，迅速发挥防滑效果。产品以天然成分松香水为主原料，无色无味、低刺激性，并获得了“安全确认对象生活化学产品”认证。

“这款产品通过了严苛的安全认证，这不仅意味着它无毒无害，

更意味着能为我们的宠物营造一个无需承受压力、可以安心打滚休息的环境。能够替这些无法开口的毛孩子着想，推出这样一款回归本质、诚意满满的产品，我由衷地感到欣慰。”

防止啃咬的NOROOWA清漆宠物产品

NOROO涂料与Seol Chae-hyeon兽医的细致咨询指导，同样应用于“NOROOWA清漆宠物”产品之中。这款产品通过添加苦味来防止宠物犬啃咬，在成分稳定性与使用便利性方面经过了严格检验。

“嘴巴是狗狗探索世界的工具。因此，首要条件是即便入口也要确保安全，其次关键在于让它们学会‘这个东西不能咬’。让它们自己感知，才是最好的教育方式！”为此，NOROOWA清漆宠物产品不仅通过了严苛的宠物安全性测试，还将耐久性提升了两倍，具备最高级别的抗刮擦性能，并采用环保VOC配方，兼顾家人与宠物的健康。产品同时还具备生活防水与防污功能。“木材一旦渗入尿液，气味极难去除。将这款产品用于门框、踢脚线、家具等位置，有助于预防此类问题。”

Seol Chae-hyeon兽医将自己比作“狗狗的辩护人”，意为代替狗狗表达心声的人。在提供产品咨询时，他的标准同样明确：“这款产品能否立刻用在我自己养的宠物身上？它是否真正对宠物有帮助？这两点最为重要。”

Seol Chae-hyeon兽医表示，当与宠物相伴的日常中发生积极变化时，他最能感受到工作的价值。作为品牌代言人，他愿意为打造比肩国际水平的“K-宠物产品”继续贡献自己的力量。有Seol Chae-hyeon兽医在兽医学与行为学领域的见解，与身为化学专业企业的NOROO涂料的研究开发能力双重加持，为宠物打造的空间必将变得更加安全、更加幸福。



A Safe Workplace, Protected by Us ESQM Team's Smart Safety Innovation

Last year, NOROO Paint won the grand prize with the highest score at the 2025 PSM (Process Safety Management) Best Practice Competition hosted by the Jungbu Regional Employment and Labor Administration. Earned in competition with major corporations, this award stands as a valuable achievement born from the ESQM Team's hard work in advancing the process of safety management system through the adoption of smart safety technologies and the strengthening of its safety culture.

安全的工作场所由我们来守护ESQM组的智能安全创新

NOROO涂料在2025年由中部地方雇佣劳动厅主办的“2025年PSM(工艺安全管理)运营优秀案例竞赛”中,以最高分数荣获大奖。此次能从众多实力雄厚的大企业中脱颖而出并获奖,是ESQM组引入智能安全技术,强化安全文化,优化工艺安全管理体系所付出的辛勤汗水结出的宝贵硕果。

SMART SAFETY TECHNOLOGY BORN FROM EVERYDAY IDEAS

The PSM (Process Safety Management) Best Practice Competition is a prestigious event in which workplaces in the region compete in safety management standards through preliminary and final rounds. NOROO Paint's ESQM Team presented its case alongside eight companies that had advanced through the preliminary round before an audience of some 170 attendees and went on to win the grand prize. The ESQM Team is dedicated to managing Environment, Safety, Quality, and Management, and is responsible for the company's core safety infrastructure, ranging from site inspections to the establishment of safety and health management systems based on the Serious Accidents Punishment Act and the

Occupational Safety and Health Act, as well as chemical substance management and global certification management. This achievement at the competition was the result of a voluntary challenge undertaken together by Manager Ha Seung-yong, Associate Park Cha-won, and Associate Lee Keon-u of the ESQM Team. Choi O-jeong, General Manager of the team, said, "I am all the more proud because this valuable accomplishment was made possible by team members who stepped up of their own accord." What drew the most attention to the team at the competition was not the introduction of grand external technologies, but practical smart safety solutions inspired by the team members' everyday ideas. One example was an AI drone, equipped with a thermal imaging sensor to detect abnormal tempera-





tures in storage tanks on a daily basis and monitor work at height in real time, which originated from a team member’s hobby of traveling. The mobile CCTV system was developed in-house based on the idea of a “baby monitor.” While a ready-made unit had been quoted at KRW 10 million each, the team built one for under KRW 500,000, drawing applause from the audience when the production cost was revealed during the presentation. The AI chatbot was created at zero implementation cost, with the three team members entering the data themselves over the course of three months. Manager Ha Seung-yong said, “Rather than making vague investment in safety technology, it was

these idea-driven smart safety solutions—practical enough even for smaller companies to adopt—that received a strong response at the competition.”

The Safety and Environment Kiosk enables users to access MSDS (Material Safety Data Sheet) information, hazardous risk information, and emergency response information, among other resources. For the safety training videos, employees themselves handled both the scripting and on-screen appearances, while an outside vendor was responsible only for filming and editing, allowing the content to reflect the realities of the worksite more faithfully. In addition, the introduction of a mobile ionizer to reduce the risk of static electricity in plastic and solid powder processes was recognized as an effective improvement well suited to the specific characteristics of the site.

A SAFETY CULTURE BUILT BY MANAGEMENT COMMITMENT AND FRONTLINE DEDICATION

Alongside its technological innovation, what was also highly praised was the safety culture embedded throughout the organization. Under management’s firm commitment to safety, the safety budget was increased by 29% from the previous year. Choi O-jeong, General Manager, said, “Through management’s wholehearted support, guided by the philosophy that safety is not a cost but an investment, people in the field came to share the understanding that the company genuinely cares about our safety. As a result, PSM naturally became part of everyday practice.”

On site, TFT meetings, safety campaigns, internal audits, and training sessions are carried out on an ongoing basis. Through



the employee-participation open chat room, “NOROO Safety Hotline,” unsafe conditions reported by workers are immediately received and addressed. Manager Ha Seung-yong said, “In the past, we had to encourage people to speak up, but now the culture has changed to the point where workers reach out first. That change is incredibly rewarding to see. The ESQM Team takes great pride in helping ensure that everyone can work safely each day and return home healthy to their families.”

Ha Seung-yong also shared the team’s determination for the future. “This grand prize is by no means the end of the story. Rather, it is a stepping stone that comes with the heavy responsibility to move even further ahead. Building on the five additional points awarded through this grand prize, the ESQM Team will do its utmost in this year’s PSM rating evaluation to advance beyond its current designation as an excellent safety workplace (S grade) and become the first in the industry to achieve the highest distinction, P grade.” The ESQM Team will continue moving forward with its original conviction and unwavering resolve that there can be no compromise on safety, until the Anyang Plant becomes the industry’s benchmark and standard for safety.

源自生活创意的智能安全技术

PSM (Process Safety Management, 工艺安全管理) 运营优秀案例竞赛是该地区的企业通过预赛和决赛比拼安全管理水平的权威舞台。共有170余名相关人士出席此次比赛, NOROO涂料的ESQM组与通过预选的8家企业一同进行了案例发表, 并最终摘得大奖。ESQM组是专门负责环境(Environment)、安全(Safety)、质量(Quality)管理的团队, 承担着从现场检查到基于《重大灾害处罚法》、《产业安全保健法》的安全保健经营体系建设、化学品管理、全球认证管理等企业经营核心安全基础设施的职责。此次竞赛的成果由ESQM组的河胜龙课长、朴次源主任、李建玧主任主动请战、共同努力取得, 对此, 崔五丁部长表示, “这是组员们自发全力以赴取得的宝贵成果, 因此更加令人自豪。”

该组在竞赛中最受瞩目的地方并不是宏大的外部技术引进案例, 而是源于组员生活创意的实用型智能安全技术。搭载热成像传感器, 每天检测储罐的异常温度并实时监测高空作业现场的人工智能无人机, 其灵感来自组员的旅行爱好。移动式监控摄像头从“宝宝家用摄像头”中获得启发, 由团队自行制作。市面成品报价为每台1000万韩元, 但他们的制作成本在50万韩元以下, 在发表现场公布制作成本后, 台下响起了热烈的掌声。人工智能聊天机器人的构建成本是0韩元, 由三名组员耗时3个月, 亲自输入数据制作而成。河

胜龙课长表示:“我们展示的不是遥不可及的安全技术投资, 而是小企业也可以应用的创意型智能安全技术, 这在竞赛中获得了巨大反响。”

在安全、环境自助终端机上, 可以查询MSDS(物质安全数据表)、有害危险信息以及紧急应对信息等。安全教育视频由员工亲自撰写脚本并出演, 外部公司仅负责拍摄和剪辑, 这种方式确保了内容能充分反映现场实际情况。同时, 为减少塑料及固态粉末工艺中的静电产生风险而引入的移动式离子发生器也被评价为贴合现场特性、具有实效性的改善措施。

管理层的意志与一线员工的热情共同塑造的安全文化

与技术创新一起获得高度评价的, 是贯穿整个组织的安全文化。在管理层坚定不移的安全意志下, 安全预算较上一年增加了29%。崔五丁部长表示, “秉持着‘安全并非成本, 而是投资’的理念, 管理层不遗余力地提供支持, 这让现场员工感受到‘公司是真心关心我们的安全’, PSM也就自然而然地融入了日常工作。”

在现场, TFT会议、安全宣传活动、内部审计、教育培训等持续开展。通过员工参与的开放式聊天室“NOROO安全申闻鼓”, 作业人员一旦报告不安全因素, 便会立即受理并予以整改。河胜龙课长表示, “过去需要我们反复劝导, 而现在文化已经发生了转变, 员工们会主动联系我们。这种变化让我觉得非常有意义和成就感。我们ESQM组怀着自豪感投身这项工作, 致力于让每一位员工都能每天安全作业, 健康回到家人身边。”

随后, 河胜龙课长还表达了今后的决心。他表示, “这次获得大奖绝不是终点。而是迈向更高目标、承载沉甸甸责任感的垫脚石。ESQM组将以此次获奖获得的5分加分为跳板, 在2026年的PSM等级评估中, 超越当前‘优秀安全企业(S级)’的目标, 力争达成同行业首家‘最优秀安全企业(P级)’的荣誉, 为此我们将竭尽全力。”ESQM组将秉持着“在安全问题上绝不妥协”的初心和韧劲, 持续努力进取, 直到安养工厂成为行业的安全标准和标杆企业。



NOROO Paint Strengthens Its Response to the High-Performance, Recoating, and Water-Based Paint Markets with New Building Products

STRENGTHENING A PRODUCT PORTFOLIO THAT COVERS EVERYTHING FROM SPECIALIZED ENVIRONMENTS TO GENERAL CONSTRUCTION

NOROO Paint has introduced 10 new products for the broad building market in 2026, stepping up efforts to strengthen its product competitiveness. With a broad building product portfolio designed to reflect a wide range of use environments and market characteristics, from specialized settings to general construction sites, NOROO Paint plans to respond to the diverse needs of its customers.

NOROO涂料凭借泛建筑新产品 强化对高性能、重新粉刷、水性涂料市场的应对能力

从特殊环境到一般建筑,全方位强化产品组合

NOROO涂料瞄准2026年泛建筑市场,推出10种新产品,以此强化产品竞争力。从特殊环境到一般建筑工地,覆盖广泛的使用环境并反映市场特性,NOROO涂料计划通过规划的泛建筑产品组合,积极应对客户的多样化需求。



FASTER AND MORE CONVENIENT THAN EVER

Having led the architectural coatings market through advanced technology and field-oriented product development, NOROO Paint is once again targeting the broader building market this year with a new lineup of products. NOROO Paint has consistently developed new products with speed by reflecting the actual conditions of construction sites and changes in the market, while continuously advancing the performance and quality of its architectural coatings.

The new products unveiled by NOROO Paint for 2026 were likewise planned based on the characteristics of construction sites and the market, and are grouped into three categories: high-performance differentiated products, products targeting the recoating and maintenance market, and upgraded products designed to strengthen the general water-based paint market. Through this lineup, NOROO Paint aims to strengthen its broad building product portfolio spanning everything from specialized environments to general construction

sites, while responding more systematically to the increasingly segmented demands of the architectural coatings market.

The high-performance differentiated product lineup includes four products designed for high-load and specialized conditions such as roads, industrial facilities, and specialty flooring. These include “NOROOWAY Anti-Icing Agent,” which significantly improves road safety by delaying the formation of ice on road surfaces in winter; “Cleanpoxy Lining Master,” which can be used to reinforce floors in environments such as logistics warehouses and smart factories where heavy loads and repeated traffic from heavy equipment vehicles are common; “Cleanpoxy Antistatic Lining,” designed for industrial sites requiring static control, such as the semiconductor, display, ultra-precision, and data center industries; and a high-performance waterproofing solution that delivers both durability and waterproofing performance through the “Blackthane AP/Skin Sheet-2000DS” system, which combines a one-component non-exposed waterproofing material with a double-sided silica sand sheet.

FIELD-DRIVEN TECHNOLOGY UPGRADES

The product lineup targeting the recoating and maintenance market was developed with a focus on renewing existing paint films and improving application efficiency at maintenance sites. “Clear Sealer (hiding type),” a water-based primer with enhanced hiding performance and adhesion, is formulated with a special synthetic emulsion to deliver stable finishing quality even on existing paint films or chalked surfaces. Compared with the existing Clear Sealer, it offers improved substrate absorption resistance and enhanced hiding performance, reducing topcoat consumption while further improving the completeness and performance of the paint film. “All-in-One Water-Based Waterproofing Material,” which integrates the primer, intermediate coat, and topcoat into a single product, can be applied in a one-step process, improving work efficiency. Available in a range of colors including gray and green, it can be applied immediately with a roller or brush once opened, making it easy for anyone to achieve a high-quality waterproofing finish. “Water-Based Flooring Topcoat” is a low-odor water-based finishing material that can be applied to a variety of flooring substrates, including urea, high-hardness urethane, and epoxy, making it suitable not only for new construction sites but also for recoating projects.

The product lineup for strengthening the general water-based paint market has also been further upgraded. “SOON & SOO Water-Based Interior New Grade 1” is an interior water-based paint that meets the KS M 6010 Type 2 Grade 1 standard, with enhanced hiding power and finish quality, making it suitable for finishing a wide range of indoor spaces, including residential and commercial facilities. The lineup also includes a New Grade 2 product based on the same concept, offering consumers a wider range of choices. For exterior use, NOROO Paint has introduced “Qfit Water-Based Exterior New Grade 1,” strengthening the competitiveness of its water-based coatings in the markets for large exterior walls and apartment housing exteriors. A NOROO Paint representative said, “These new broad building products form a strategic lineup

tailored to specific targets by reflecting on-site conditions and the growing segmentation of the market,” adding, “From high-performance products to recoating and the water-based coatings market, we will continue to expand our product competitiveness across the building sector as a whole.”

最快、最便捷

NOROO涂料凭借领先的技术实力和以现场为中心的产品开发,引领建筑用涂料市场,2026年也将推出新产品,攻占泛建筑市场。NOROO涂料通过反映建筑工地的实际使用环境和市场变化,以最快的速度开发新产品,并持续优化建筑用涂料的功能和质量。

NOROO涂料于2026年推出的新产品同样基于建筑工地和市场特性进行规划,由三大类别组成,分别是高性能差异化靶向型、重新粉刷和修缮市场靶向型以及为强化一般水性市场而推出的升级型产品等。NOROO涂料的战略是,通过此次产品阵容,强化覆盖从特殊环境到一般建筑工地的泛建筑产品组合,更加系统性地应对日益细分的建筑涂装市场需求。

高性能差异化靶向型产品系列包括4款专为道路、工业、特殊地面等高负荷及特殊条件现场设计的产品。其中包括:延缓冬季路面结冰,大幅提升道路安全性的“NOROO WAY防冻材料”;可用于物流仓库、智能工厂等高荷重及重型设备车辆频繁行驶环境中的地面加固产品“Clean Foxy Lining master”;专为半导体、显示器产业、超精密产业及数据中心等需要静电管理的产业现场设计的“Clean Foxy抗静电Lining”;单液型非暴露防水材料 and 双面硅砂薄片相结合的“Blacktan AP/Skin Sheet-2000DS”系统工艺,提供兼具耐久性和防水性能的高功能防水解决方案。

以现场为中心的技术升级

面向重新粉刷及修缮市场的产品系列,其开发重点在于提高现有涂层的翻新效果和维护保养现场的施工效率。强化遮盖力和附着力的水性底漆“Clear Sealer(遮盖型)”以特殊合成乳液为基础,即使在现有涂层或发生粉化的表面上,也能实现稳定的饰面质量。相比现有Clear Sealer产品,进一步强化了对基材吸收的抑制力和遮盖力,在减少面漆使用量的同时,提升了涂层的完整性和性能。将底漆、中间漆、面漆合而为一的“全效水性防水材料”可实现单道工序施工,有效提高作业效率。该产品可满足对灰色、绿色等多种颜色需求,产品开封后可以直接用滚筒或刷子进行涂装,任何人都能轻松刷出高质量防水效果。“水溶性地面材料面漆”是一种低气味水性饰面材料,可以应用于尿素、高硬度聚氨酯、环氧基等多种地面基材面,无论是新建现场还是重新粉刷现场,都可以便捷使用。

针对一般水性市场进行强化的产品系列也进一步升级。“纯&秀水性内部用NEW1级”是一款进一步提高遮盖力和饰面质量的水性涂料,符合KS M 6010 2类1级规格,适用于住宅及商业设施等多种室内空间的饰面工程。该系列还推出相同概念的NEW 2级产品,拓宽了消费者的选择范围。在室外用途方面,公司推出了“Q-fit水性室外用NEW 1级”,进一步强化了在大型外墙和共同住宅外部涂装市场的水性涂料竞争力。

NOROO涂料方面表示,“此次泛建筑新产品是根据现场环境和市场细分化趋势,按目标客户群构建的战略性产品阵容。从高性能产品到重新粉刷市场、水性涂料市场,我们将覆盖整个建筑领域,持续扩大产品竞争力。”

NEWS BRIEFING



NOROO Holdings Recognized as "2025 Outstanding Company in Business Ethics and Integrity Management" by ACRC

NOROO HOLDINGS

NOROO HOLDINGS RECOGNIZED AS "2025 OUTSTANDING COMPANY IN BUSINESS ETHICS AND INTEGRITY MANAGEMENT" BY ACRC

NOROO Holdings has been selected by the Anti-Corruption and Civil Rights Commission (ACRC) as a "2025 Outstanding Company in Business Ethics and Integrity Management" and received a commendation from the commission chair. At this year's awards, three private companies were selected. Among them, NOROO Holdings was recognized for its active initiatives in implementing group-wide ethics and anti-corruption practices and enhancing transparency, becoming the first company in the paint and coatings industry to receive the honor.

ACRC has been promoting the adoption of business ethics and integrity management practices across the private sector. In 2025, the commission focused on encouraging participation from mid-sized companies and boosting the effectiveness of anti-corruption efforts. Over the past three years, NOROO Holdings has worked with ACRC to implement initiatives such as the on-site training program on business ethics management for private companies and the compliance program, while establishing a group-wide business ethics and anti-corruption management system. Notably, through its participation in the compliance program, the company identified corruption risks at the group level and upgraded internal control procedures. Based on assessment results, it developed improvement initiatives, which are being implemented in phases.

The company has also established a regular "business ethics management workshop for leaders in the chemical business," including its key affiliate NOROO Paint & Coatings, as well as operates a structured business ethics and human rights education system for new hires, promoted employees, and leadership. In addition, NOROO Holdings has strength-

ened organization-wide adoption by transparently disclosing its business ethics and anti-corruption activities through its sustainability reports.

An official of NOROO Holdings said, "This recognition reflects the strong commitment of our top management and acknowledges our company-wide efforts to implement an business ethic management system centered on our ESG management framework. We will remain committed to advancing our ESG, compliance, and business ethics management practices to global standards, grounded in our core values of integrity and fairness."

NOROO控股股份有限公司

获选国民权益委员会“2025年度清廉伦理经营有功企业”

NOROO控股股份有限公司近日被国民权益委员会评选为“2025年度清廉伦理经营有功企业”，并获得委员长表彰。本次共有3家民营企业获此殊荣。NOROO控股股份有限公司是涂料行业首家获奖企业，其在集团层面积极践行伦理和反腐败经营、致力于提升透明度的突出贡献获得了高度认可。

国民权益委员会持续推动民营企业普及清廉伦理经营，2025年重点鼓励中坚企业参与，着力夯实反腐败工作成效。过去三年间，NOROO控股股份有限公司持续与国民权益委员会沟通协作，推进了“民营企业清廉伦理经营上门培训”及“自觉遵守伦理经营项目 (Compliance Program)”，并逐步构建起伦理和反腐败经营体系。特别是通过参与“自觉遵守伦理经营项目”，从集团层面识别了腐败的风险，完善了内部管控流程，并根据诊断结果制定出改善课题，分阶段加以推进实施。

此外，公司以核心子公司NOROO涂料股份有限公司为中心，将“化学业务负责人伦理经营研讨会”常态化，并面向新员工、晋升人员及负责人运营系统性的伦理和人权培训体系。与此同时，公司还通过可持续发展报告透明披露伦理和反腐败活动成果，持续强化全集团的实践基础。

NOROO控股股份有限公司相关负责人表示，“此次获奖是集团最高管理层的坚定意志以及以ESG经营推进组织为核心、启用全公司伦理经营体系的诚意获得认可的结果”，“今后，我们将继续以‘正直与公平’的职业道德价值观为基础，持续提升全球水平的ESG、合规、伦理经营水平”。

NOROO HOLDINGS STEPS UP ENVIRONMENTAL DISCLOSURE EFFORTS TO ENHANCE ESG MANAGEMENT

NOROO Holdings has begun actively responding to global environmental disclosure requirements as part of its efforts to enhance ESG management and build a foundation for carbon neutrality. NOROO Paint & Coatings has participated for the first time in the climate change assessment of Carbon Disclosure Project (CDP). This marks the first step toward expanding group-wide environmental management and refining its climate risk response system, laying the groundwork for further strengthening NOROO Holdings' ESG framework.

CDP is a leading global environmental disclosure system that guides major institutional investors and financial institutions worldwide. It comprehensively evaluates companies' climate change response strategies, carbon neutrality initiatives, and the level of environmental information disclosure. Participation in CDP has also been



NOROO Holdings Steps Up Environmental Disclosure Efforts to Enhance ESG Management

increasingly encouraged in Korea's capital markets, serving as a key benchmark for assessing companies' climate response capabilities and environmental management systems.

To proactively respond to these changes, NOROO Holdings has advanced CDP participation led by NOROO Paint & Coatings. The company has also formed a joint task force with NOROO Paint & Coatings to accelerate efforts to build a carbon neutrality foundation, including carbon management, expansion of global inventories, scenario analysis, and reviews of mid- to long-term transition investment strategies. These efforts reflect a phased expansion of the group's climate response and disclosure framework.

In particular, while listed companies in Korea's paint and coatings industry are also facing growing pressure from global institutional investors to participate in CDP, many have yet to take concrete action. In this context, NOROO Paint & Coatings' commitment to CDP is significant in demonstrating a proactive approach to environmental disclosure and carbon neutrality framework development.

An official of NOROO Holdings said, "Climate change response and environmental disclosure are no longer optional but have become key benchmarks of corporate competitiveness. We will keep building our carbon neutrality foundation in partnership with our affiliates and further strengthen our environmental management and ESG execution."

通过全面应对全球环境信息披露，强化ESG经营

NOROO控股股份有限公司为加强ESG经营、构建碳中和基础，已正式启动全球环境信息披露应对工作。旗下核心子公司NOROO涂料股份有限公司首次参与全球环境信息公开平台——CDP (Carbon Disclosure Project, 碳信息披露项目) 的气候变化 (Climate Change) 评估。这标志着集团层面拓展环境管理、精细化气候风险应对体系迈出了第一步，也为今后更加精密地构建NOROO控股股份有限公司整体ESG推进体系奠定了坚实基础。



NOROO Paint & Coatings Launches FireBlocking 216, a Fire Protection Coating for Steel Structures

CDP作为全球主要投资机构和金融机构高度关注的代表性环境信息披露平台，综合评估企业在气候变化应对战略、碳中和推进努力以及环境信息公开水平等方面的表现。近期，韩国资本市场对企业参与CDP的要求也在不断扩大，CDP正成为衡量企业气候变化应对能力及环境管理体系的重要标尺。

NOROO控股股份有限公司为提前应对这一趋势，以NOROO涂料股份有限公司为中心推进了CDP评估参与工作，并与NOROO涂料共同组建了专项工作组 (TFT)，加快构建实质性碳中和基础，具体包括碳排放管理、全球库存清单扩展、情景分析、中长期转型投资方向审视等，逐步扩大集团层面的气候变化应对及披露体系建设。

值得注意的是，韩国国内涂料行业的上市企业虽然也收到全球机构投资者关于参与CDP的要求，但大多数企业尚未正式行动起来。在此背景下，NOROO涂料的首次参与具有重要象征意义，展现了在环境信息披露与碳中和体系建设方面的先行姿态。

NOROO控股股份有限公司相关负责人表示，“应对气候变化和环境信息公开，如今已不再是可选项，而是企业竞争力的重要标准”，“今后，我们将继续与各子公司一道，系统化地夯实碳中和基础，持续提升环境管理与ESG执行力”。

NOROO PAINT & COATINGS

NOROO PAINT & COATINGS LAUNCHES FIREBLOCKING 216, A FIRE PROTECTION COATING FOR STEEL STRUCTURES

NOROO Paint & Coatings (NOROO PAINT) has launched a new product, FireBlocking 216, designed to secure fire resistance performance for structural steel columns in buildings. FireBlocking 216 is an intumescent fire protection coating that has obtained a two-hour fire rating under Korean standards. It is a high-performance product engineered to protect steel structures in the event of a fire.

When exposed to high heat, the coating rapidly expands and forms a thick insulating layer, effectively delaying the transfer of heat to the steel structure. In a fire, the temperature of steel structures can rise rapidly, significantly reducing structural stability and potentially leading to sudden building collapse. The application of FireBlocking216 helps delay

NEWS BRIEFING

these risks, giving enough time for evacuation and initial response while reducing damage to people and property. As steel-structure buildings such as logistics centers, mixed-use developments, and large-scale retail facilities continue to increase, the importance of certified fire-resistant materials is becoming more pronounced. FireBlocking216 has been performance-verified in accordance with Korea's fire resistance certification system, as well as obtained a two-hour fire rating for steel columns in buildings. The product has also been rated "compliant" under KS F 2271 (Test method for gas toxicity of finishing materials of buildings), meeting standards for the potential toxicity of combustion gases generated in the early stages of a fire. In addition, as a single-component product, it minimizes mixing requirements to improve convenience. Its matte finish also meets architectural finishing requirements.

An official of NOROO PAINT said, "This two-hour fire rated FireBlocking 216 is designed with a mechanism that delays heat transfer by forming an expanded insulating layer in the event of a fire. It was developed with both fire performance and convenience in mind for steel-structure buildings."

NOROO涂料股份有限公司

推出可在火灾时保护建筑钢结构的“FIREBLOCKING 216”

NOROO涂料股份有限公司于去年冬季推出了用于确保建筑钢柱耐火性能的新产品“FireBlocking 216”。FireBlocking 216是一款获得韩国2小时耐火结构认证的发泡型耐火涂料，是专为火灾发生时保护钢结构而设计的高性能产品。

该产品在受到火焰加热时，涂膜会迅速发泡膨胀，形成厚厚的隔热层，从而有效延迟热量向钢结构传递。火灾发生时，钢结构的温度会急剧上升，结构安全性大幅下降，可能导致建筑迅速坍塌。FireBlocking 216的应用能够延缓此类风险，为人员疏散和初期应对争取时间，有助于减少人员伤亡和财产损失。近年来，随着物流中心、综合建筑、大型卖场等钢结构建筑不断增加，经过认证的耐火材料的重要性也愈发凸显。FireBlocking 216以保障建筑钢柱实现2小时耐火性能为目标，已按照韩国耐火结构认证制度完成性能验证。此外，该产品还获得KS F 2271 (建筑装饰材料气体有害性试验方法) 标准的“合格”判定，在火灾发生初期可能产生的燃烧气体有害性方面也满足相关要求。同时，该产品为单组分型，最大程度简化了混合工序，提升了现场施工便捷性，并采用哑光规格，可满足建筑装饰需求。

NOROO涂料相关负责人表示，“FireBlocking 216是一款基于2小时耐火结构认证、通过火灾时形成发泡隔热层来延迟热量传递机制的产品”，“同时兼顾了钢结构建筑所需的耐火性能与现场施工便利性”。

A BACK-TO-SCHOOL INTERIOR SOLUTION: MAGIC-OFF PEELABLE PAINT

To meet growing demand from consumers looking to give their children's rooms a makeover for the new school term, NOROO Paint & Coatings has introduced NOROO Magic-Off Peelable Paint as a new alternative. This water-based paint can be peeled off like a sheet once fully dried, allowing users to make transformations and restorations as much as they want.



A Back-to-School Interior Solution: Magic-Off Peelable Paint

Unlike conventional paints, Magic-Off Peelable Paint is not designed for permanent coating. It is formulated with both durability and neatness in mind. While it maintains sufficient adhesion under normal indoor conditions, it can be removed cleanly after a certain period of time. To enhance durability, the company recommends applying three coats and using a dedicated primer suited to the surface. In particular, for absorbent surfaces such as wallpaper, using a primer helps prevent lifting and minimizes wall damage during removal. In addition, Magic-Off Peelable Paint is an eco-friendly, water-based product that does not use volatile organic solvents, significantly reducing the characteristic paint odor. It is designed to allow normal daily activities immediately after application, making it suitable for living spaces such as children's rooms and living rooms.

Consumer response has also been positive. Although it is still in its initial stage of sales, the product has garnered high interest by maintaining the top ranking in the paint and coatings category on NOROO PAINT's official online store. The company attributes this to lowering the barrier to entry for DIY interior projects, which has resonated with consumers. An official of NOROO PAINT said, "Magic-Off Peelable Paint is designed to help consumers use their spaces more flexibly during times of change, such as the start of a new school term. It offers a practical solution for those looking to update room interior as their children grow, with the option to easily change and restore the space as needed."

新学期室内装修解决方案：“刷涂后可撕掉的MAGIC OFF涂料”

NOROO涂料专为迎接新学期、准备重新布置子女房间的消费者推出了“NOROO Magic Off可剥离涂料”作为全新解决方案。该产品是一种水性涂料，涂刷并完全干燥后，可像壁纸一样整张撕下，其特点在于可根据需要随时改变空间风格，并能够轻松恢复原状。

与传统涂料不同，Magic Off可剥离涂料不以永久附着为前提。该产品设计时

考虑到了使用一定时间后需要去除的情况，在维持日常室内环境足够附着力的同时，确保在需要去除时可干净利落地剥离，实现了性能的平衡。为增强耐久性，建议涂刷三遍，并针对不同表面特性使用专用底漆。特别是在壁纸等吸水性表面使用底漆，既可防止涂层起泡，又能最大限度减少剥离时对墙面的损伤。此外，Magic Off可剥离涂料是不使用挥发性有机溶剂的环保水性产品，大幅减少了特有味。即使涂刷后不久，也能达到可正常生活的水平，适用于儿童房、客厅等生活空间，使用负担小。

消费者的反应也十分积极。虽然产品尚处上市初期，尚难评估长期销售指标，但该产品已在NOROO涂料官网上商城的涂料类别中保持销量第一，引发广泛关注。分析认为，降低DIY装修门槛是赢得消费者选择的关键因素。NOROO涂料相关负责人表示，“Magic Off可剥离涂料是一款帮助消费者在新学期等需要变化的时期更灵活运用空间的产品”，“对于希望随着孩子成长，在需要时能自由改变并随时恢复原状的消费者而言，这将是一个现实可行的选择”。

THE KIBAN

THE KIBAN SUCCESSFULLY COMPLETES IBS PROJECT IN LAOS WITH KOICA

THE KIBAN has successfully completed an Inclusive Business Solution (IBS) project in Laos in collaboration with the Korea International Cooperation Agency (KOICA), holding a seed donation ceremony in Paksong on March 20.

IBS is a flagship international cooperation program led by KOICA that brings together public and private sectors to build sustainable economic models in developing countries. Through this initiative, the Ministry of Agriculture and Environment of Laos secured high-value vegetable seeds, including chili peppers, tomatoes, and cabbage. This program is expected to help improve the country's agricultural self-sufficiency and promote economic independence.

The project's objective is to address low productivity and limited access to seeds and farming technologies among local farms. By providing high-quality seeds and cultivation techniques, the project represents a meaningful step toward building a sustainable agricultural foundation and a self-reliant system.

Through the IBS project, THE KIBAN has been recognized for transferring locally adapted seedling and cultivation techniques, contributing to improved agricultural productivity and increased farm income. At the same time, the initiative has further strengthened trust in and recognition of Korean companies within the Laos community. THE KIBAN plans to



THE KIBAN Successfully Completes IBS Project in Laos with KOICA

foster the development of a sustainable agricultural ecosystem through farmer education and ongoing management and collaboration. The company also aims to expand win-win agricultural development models, enhancing agricultural competitiveness in developing countries while exploring new market opportunities.

THE KIBAN

THE KIBAN与KOICA成功完成老挝IBS项目

THE KIBAN与韩国国际合作机构(KOICA)在老挝共同推进的包容性商业解决方案(IBS: Inclusive Business Solution)项目成功收官，并于3月20日在巴松(Paksong)举行了种子捐赠仪式。

IBS是KOICA的代表性国际合作项目，旨在推动发展中国家公私合作，构建可持续经济模式。通过此次援助，老挝农业环境部(MAE)获得了辣椒、番茄、卷心菜等高附加值蔬菜种子，这将有助于提升国家层面的农业自给率，并促进经济自立。

该项目旨在解决老挝农户生产力低下以及种子、技术不足的问题，通过提供优质种子和栽培技术，构建农业生产基础和自立可持续结构，具有重要的可持续合作模式意义。

THE KIBAN通过此次项目，传授了适合老挝当地的育苗及栽培技术，在提升农业生产力和增加农户收入方面获得了积极评价。同时，当地社区对韩国企业的信任度和企业形象也得到了进一步提升。THE KIBAN计划今后继续通过当地农民培训及持续的管理与合作，助力农业生态系统形成，扩大共赢型农业开发模式，在提升发展中国家农业竞争力的同时，共同开拓新市场。

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