Patent Protection & Registration

Patents grant property rights on new and useful inventions, allowing the patent holder to prevent others from using, making, or selling that invention without permission for a limited time. U.S. patents are permitted by the U.S. Constitution and are designed to promote scientific progress and invention. By allowing inventors to profit from licensing or selling their patent rights, inventors can recoup their research and development costs and benefit financially from their inventing efforts. There are three main types of patents utility, plant, and design. Utility and plant patents can last up to 20 years, while design patents can last up to 15 years. When a patent expires, the patented material enters the public domain, making it free to use by anyone without a license. U.S. patents are issued by the United States Patent and Trademark Office (USPTO)

U.S. Patent No. 12,090,719 entitled "Method and System for Applying a Sealing Agent to the Surface of an Internal Cavity of a Pneumatic Tire" issued September 17, 2024 to Bridgestone Europe NVSA [BE/BE]. Invented by Roberto Pontone of Rome, Italy and Paolo Straffi of Rome, Italy. **Abstract:** A method and system for applying a sealing agent to a surface (2) of an inner cavity (3) of a pneumatic tyre; the method provides for detecting the weight of the pneumatic tyre (4) before and after the application of the sealing agent to the surface (2); calculating the difference between the quantity of sealing agent applied to the surface (2) and a reference quantity of sealing agent, storing said difference within a short-term memory buffer (24) and a long-term memory buffer (26); determining a short-term compensation factor (K.sub.ST) and a long-term compensation factor (K.sub.LT) and calculating a correction factor (K.sub.EA) using alternately the short-term compensation factor (K.sub.ST) or else the long-term compensation factor (K.sub.LT); and using said correction factor (K.sub.EA) to actuate an applicator device (7) during the subsequent step of applying the strip of sealing agent to the surface (2).