

Let me start by saying that I greatly appreciate the opportunity to write a regular column for Magnetism Magazine. This is an ideal job for me. Writers are taught to write about subjects they know and love. I think I am on very solid ground with the subject of magnetic materials.

It is a particular personal honor to take over this post from Port Wheeler, who retired at the end of August 2004. He has been an omnipresent force for good in the permanent magnet industry. We understand the concept of vision and its importance to our future from him. However, I do find it a bit ironic to be the youngster in this position at age 53! Just the same, here I am, ready to start.

After my article on the corrosion of NdFeB was published last year in Magnetism Magazine¹, I received an interesting e-mail with a thought provoking question. It said, "I have avoided using Chinese magnets because of the quality problems I experienced with them several years ago. But because of price pressures, I feel that I must try again. I also know my competitors are using Chinese magnets successfully. How do I find a viable source?" This is a great question.

There are several things to look for in any potential supplier of NdFeB. First, they must be licensed. Both Sumitomo and Magnequench discuss their patent positions on their web sites^{2, 3}. Sumitomo also lists their current licensees on the same page.

Second, any potential supplier should be at least ISO 9001 certified and actually following the guidelines. Observing the more stringent QS 9000 standard might be helpful for the automotive industry,

especially the concepts of APQP (Advanced Product Quality Planning) and PPAP (Production Part Approval Process). If performed correctly, they are extremely helpful for large production runs in any industry.

Third, they should have a sales office nearby. Communications become more critical as the distance between supplier and customer increases. Strong local support, both technical and commercial, is important, when logistics and language are complicating factors.

Fourth, if appropriate, your future supplier should do their own coating, rather than outsourcing it. Coating NdFeB magnets is just too important to trust to a third party.

These are the basic guidelines I would offer as a starting point for qualifying any new NdFeB magnet supplier. Good luck!

If you have any suggestions for future topics for this column, please let me know.

¹ www.spontaneousmaterials.com/Papers/Corrosion.pdf

² www.sumitomosma.com/03_sin.htm

³ www.magnequench.com/tech_resources/tech_center/reference/pdf/patentinfo.pdf

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