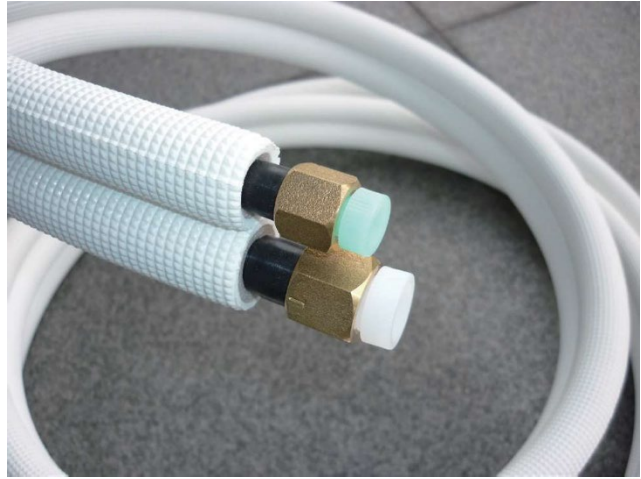


Story Behind the Development of Aluminum Pipe for A/C

This article is from the interview to our vice president who developed aluminum pipe for A/C. Let's see its background and future prospects of aluminum pipe!!



SHIFT FROM COPPER TO ALUMINUM

Before developed aluminum pipe named CAT PIPE®, using copper pipe is common way for the piping of air conditioner. As copper price fluctuates widely and owing to one material alone has a risk of shortage, we decided to develop alternative piping material for cost-wise and stable supply to customers. When I happened to find thin aluminum tubular at the exhibition in Tokyo was the trigger to focus on the possibility of aluminum.

OVERCOME DIFFICULTIES FOR COMMERCIALIZATION

Concern for strength was able to settle easily by adapting aluminum alloy which has the same level of strength of copper. The biggest challenge was how to solve galvanic corrosion comes from the contact between dissimilar metals because copper has been used for the connection port of air conditioner. So, we newly designed exclusive flare nut & rubber cap to solve it. As this solution is good to save the cost and easy installation for everyone, we decided to adapt it.

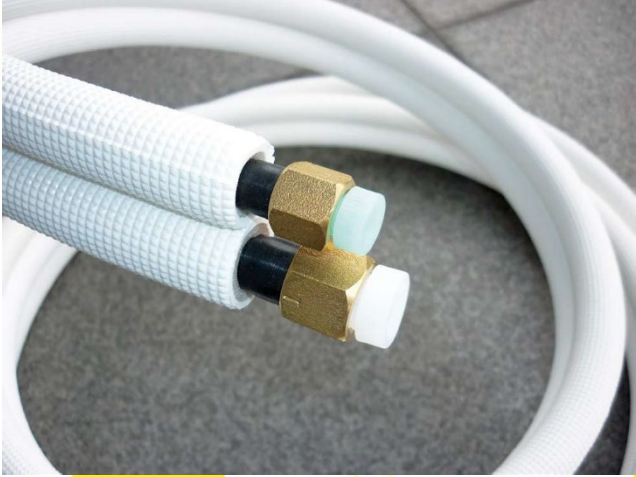


CHALLENGES FOR UNPRECEDENTED

Then, we started negotiation with buyers. Although major appliance and electric store chain showed positive interest to aluminum pipe, it took a time to get an understanding of veteran installers for this alternative connection pipe. When Great East Japan Earthquake struck, many aluminum pipes were used for air conditioner installed in the temporary housings because of a shortage of copper pipes and wires for reconstruction. However, improper installation made there caused gas leakage unfortunately, it spoiled the momentum of our CAT PIPE® sales. From this bitter experience, we tried to give more detailed explanation to installers for better understanding and regain their confidence.

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Such efforts got bear fruit, sales of aluminum pipe regain the momentum and user awareness has been growing. Aluminum pipe is much affordable and easy to carry compared with copper pipe, so it has been well evaluated by users who understand characteristics of aluminum and do proper installation.

LONG AND WINDING ROAD TO DEVELOPMENT

As it was the first attempt in our industry to use aluminum for piping of air conditioner, how to get the understanding of A/C manufactures for its commercialization was the toughest part. Different material means different criteria, it took a long time to get their understanding.

As a result of persistent explanations with our strong will that aluminum becomes a replacement of copper in near future, the number of companies who supports us is keep increasing.



SIGNIFICANT HURDLE TO BREAKTHROUGH

On the other hand, there is still a big wall standing in front of the breakthrough of aluminum pipe, it is that each A/C manufacture hesitate to approve the use of aluminum for piping officially.

The Aluminum Piping Industry Association formed by around 40 companies is spending on their effort to overcome this situation. Since proper installation made brings high safety and aluminum is eco-friendly than copper, we will continue to strive for the popularization of aluminum pipe.



PERSPECTIVE

We have great expectation for more entry of manufactures because it will spread the marketability of aluminum pipe into the world.

We believe to keep open-mind technically is very important for the company to expand this promising material.

Strong and lightweight aluminum pipe is highly appreciated by many A/C installers.

More popularity brings more merit of aluminum pipe, so I am really exciting to see the promising future of aluminum pipe, thank you.