

**This profile – only a professional could dream this up** When the wind comes off the Alps and rattles the shutters, it can be quite noisy. The Swiss company Lamelcolor SA specializes in designing “I-Silent” solar shading systems with an innovative anti-noise profile that always keeps the slats in place within the guide rail regardless of the intensity of the storm. This system utilizes refined plastics technology and is the result of passionate engineering.



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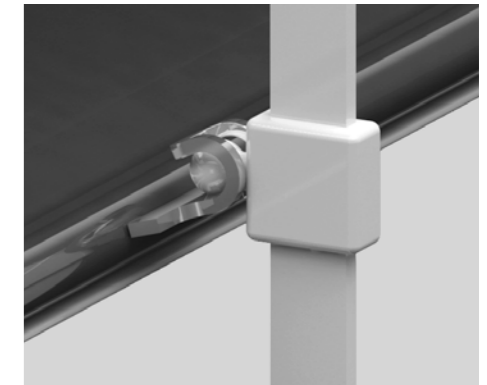
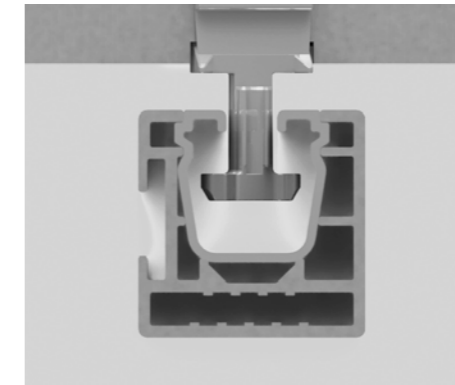
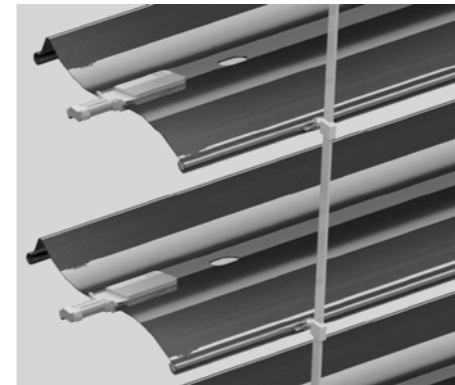
No more rattling blinds – and even easy to install and durable: Angst+Pfister developed the ideal profile in record time.

The noise caused by the wind on the shutters kept the engineers up at night – Lamelcolor owed it to itself and its customers to find an innovative solution. Mauro Carenza, an application engineer at Angst+Pfister for technical polymers, went to Lamelcolor, looked at the task and saw a solution. The geometry of the plastic inset profile had to be re-

signed so that it could be exactly embedded in the aluminum guide profile to ensure an optimal fit of the slats.

**A quick and perfect solution** Less than a week after the visit to Lamelcolor, the solution was designed. It convinced Fabrice Bourqui, the director of research and development at Lamelcolor, and he immediately ordered the extrusion tools for the production of samples of the redesigned profile. Just one month af-

ter the first contact with Angst+Pfister, the new prototype arrived at Lamelcolor: unlike its “predecessor”, it was no longer in danger of being damaged during installation, and it kept the tension. The new prototype fit perfectly into the aluminum profile, and the plastic guides of the slats still had enough room to turn in the profile by 45°. Within a



The cross section of the aluminum guide profile – pictured in the center – is embedded during assembly with rigid PVC profile. The plastic guides of the slats still had enough room to turn a 45° angle.

month, the first series went into production. “Nous avons mis les bouchées doubles – we pulled out all the stops to find a solution,” says Mauro Carenza.

**The ideal angle** As a thermoplastic, rigid PVC only has limited elasticity. The width of the rigid PVC profile must be pressed slightly so that it can be placed into the aluminum profile. The minimal elasticity contributes to the fact that after assembly, the rigid PVC profile seeks its original form and thereby keeps the tension. However, the elasticity alone is not enough to avoid permanent deformation. Mauro Carenza quickly realized that he had to reduce the opening angle of the profile in order to maintain both the shape and the tension. The technical study carried out by Angst+Pfister made it possible to find the ideal angle quickly.

**Temperature and life-time** Sun shades are inevitably exposed to high temperatures in the summer and to extreme lows during the harsh

Swiss winters. Heat can lead to dilatation and a reduction in the rigidity of the rigid PVC profile. Drawing on his wealth of experience and application knowledge, Mauro Carenza therefore factored the seasonally varying temperatures into his calculations. He designed the dimensions of the profile so that it has enough space within the aluminum profile to freely expand in length.

He devoted the same rigorous attention to the profile’s durability, resistance to aging and fatigue. The rigid PVC profile retains the tension so that it stays in place without distortion, even over a long period of time.

**A design becomes the standard** Fabrice Bourqui is delighted: “At first we only used the ‘I-Silent’ system for our Wave 88 venetian blinds, but now we will be rolling it out for other products as well.” So Lamelcolor’s customers can rest assured that their blinds will not rattle when the wind blows. A relatively small PVC component that Angst+Pfister put a lot of know-how into can dampen noise. No matter which way the wind blows, thanks to this innovation, Lamelcolor has a Europe-wide competitive edge.

**Easy installation** The rigid PVC profiles from Angst+Pfister also make assembly more efficient and easier at the same time. They no longer need to be an integral part of the guide rail, but can instead be inserted when the guide rail is already fixed to the wall. “This also eliminated the risk that the screws could damage the rigid PVC profile and impair its function,” says Fabrice Bourqui.

**“Angst+Pfister has become a development partner for us. Innovation is and will remain our watchword.”**

Fabrice Bourqui, Director of Research and Development, Lamelcolor SA, Estavayer-le-Lac, Switzerland

The excellent experiences that he has had with Angst+Pfister have opened the door to further cooperation. Angst+Pfister, which is happy to provide its knowledge for future products, has become a strategic development partner for Lamelcolor. The next new product will come onto the market in 2014. Throughout the company’s more than 50-year history, Lamelcolor has reinvented itself, its sun protection systems and its automation solutions again and again. Lamelcolor strives to constantly develop innovations that ensure it will remain technologically a step ahead of its competitors. Angst+Pfister is there to help its customers sleep well at night.

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