



## **FRANZ PELESKA**

### **VP AND DIRECTOR OF CHILD SAFETY PRODUCTS AT CYBEX**

Franz Peleska is Director of Child Safety Products at CYBEX. Born in Austria, he has been with CYBEX as a child safety expert for 17 years, ever since the founding of the company. Prior to that, he was employed by the internationally renowned ÖAMTC (Austrian Automobile, Motorcycle and Touring Club) for almost 20 years.

During his tenure at ÖAMTC, Franz Peleska headed the Test and Technology department and was in charge of developing and managing their leading child car seat test in cooperation with all major European consumer organizations and automobile clubs.

Since 2005 Franz Peleska has been with CYBEX, where, under his leadership, the most modern car seat crash center test system ever has been built in its Bayreuth headquarters.

He is responsible for the development of numerous award-winning car seats, such as the CYBEX Solution and CYBEX Pallas series, as well as the CYBEX Sirona and the CYBEX Aton and Cloud infant car seats. He is also the head behind many of CYBEX's safety technology patents, such as the Linear Side-impact Protection (L.S.P.) System and the adjustable headrest, which have been the guarantors of the top ratings CYBEX products have received in safety tests over the years.

#### **The Anoris T i-Size - a technical innovation**

The Anoris T i-Size is a technological masterpiece. For three years, a team of engineers and physicists at CYBEX focused on the development of the seat. The technology was created entirely in-house, so all the know-how is concentrated in CYBEX. The crash analysts, all of whom hold a doctorate in physics, are responsible for the development of the algorithm that triggers the Anoris T i-Size airbag. Only a handful of employees have full knowledge of this algorithm.

"The Anoris is a revolution in the industry. Today, no one can imagine buying a car without an airbag – in the future it will be the same for car seats with or without airbags," Franz Peleska, Director of Child Safety Products at CYBEX.

During the development of the Anoris T i-Size, ten times as many tests were carried out in the crash test center compared to car seat models without airbags. Numerous tests were done by the team to complete the due diligence and to ensure that this technology is robust and reliable in our day to day usage. This was done to ensure the correctness of the algorithm, including so-called "non-accident situations". CYBEX decided to use a high performing and highly integrated semiconductor chip that is capable of processing and analyzing the environmental factors 1,000 times per second. The microcontroller in the airbag can decide within a few milliseconds whether or not a potentially hazardous situation has occurred in which the child could be injured and the airbag needs to be deployed.



Unlike the large-volume airbags that are now standard in cars, the full-body airbag in the Anoris T i-Size deploys using compressed gas – no pyrotechnics is involved. In the event of a collision, the Anoris T algorithm decides within milliseconds whether it is a dangerous situation in which the airbag is needed. The detonator is activated, the membrane at the tip of the gas capsule melts and gas flows into the airbag within about 10 milliseconds. In the event of deployment, the full-body airbag is inflated before the child's body even starts to move forward in response to the collision, protecting the child from head to knees. In this way, the airbag system ensures that the forces acting on the child's body are up to more than halved.

"There has never been such a huge leap in safety improvement in child car seats as with the Anoris T i-size. The test evaluations show incredible values. During the initial crash tests, we thought, 'this can't be real, there must be a mistake here,' because the load values were actually half of those of comparable models," Franz Peleska, Director of Child Safety Products at CYBEX.

Even without the built-in full-body airbag, the Anoris T i-Size is an above-average forward-facing car seat thanks to the impact shield, which provides very good protection in accident situations for children between the ages of 15 months and 6 years (child height: 76 cm to 115 cm). In addition to this, the safety risk from an incorrectly installed child car seat is minimized with improved technical support. CYBEX has built an integrated safety assistant into its latest product innovation, which uses visual and acoustic signals to assist parents with the installation of the seat and the buckling up of the child. This prevents installation errors as well as problems before and during the ride.

The Anoris T i-Size and all components installed in the child car seat have undergone validation processes regularly used in the automotive sector. These ensure that all semiconductor components remain functional in temperatures ranging from -40 to 125 degrees Celsius, making sure the Anoris T i-Size will remain fully operational at all times.

## Quotes

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"With the full-body airbag, we've managed to halve the forces acting on the child's body. This is a sensation – comparable to the development of the airbag in cars in the early 1980s."



"The Anoris T i-Size represents a new dimension in child safety."

"Thanks to the integrated impact shield, the Anoris T i-Size would be one of the best seats on the market even without an airbag. The full-body airbag raises the safety level to an unprecedented level."

"The airbag is fully inflated even before the child is decelerated."

"Anoris may be the safest on the market, but we see potential to do even better."

For more information [www.cybex-online.com/de](http://www.cybex-online.com/de) and [www.cybex-online.com/newsroom](http://www.cybex-online.com/newsroom)

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