

High Tech *for the* HEART

The Pediatric Cardiology Clinic, a unit of the Heart and Diabetes Center of North Rhine-Westphalia, uses X-ray protection glass made by Schott Desag.



The Heart and Diabetes Center of North Rhine-Westphalia is located in the scenic health resort of Bad Oeynhausen. The Center consists of four clinics: Heart Surgery, Cardiology, Pediatric Cardiology and Diabetes.

The Pediatric Cardiology Clinic, housed in a modern two- to three-story building, was designed by the B+K architectural firm of Bad Oeynhausen. The clinic is easily recognizable by its novel design emphasizing the basic shapes and colors found in children's building blocks. Circles, squares, rectangles and triangles, are painted in red, blue and yellow colors. These

basic elements are also found in the clinic's cheerful interior, designed by artist Peter-Thorsten Schulze from Mühlheim, also known as "Oller Hansen". The building unites high tech and human warmth in order to do justice to the various ages and sizes of the patients, who range from premature babies to young adults. Also part of the therapeutic program is a house for parents designed by Frank O. Gehry and donated by the Ronald McDonald Children's Charity.

Under the direction of Prof. Dr. Hans Meyer, the diagnosis and therapy of congenital heart defects make up the majority of the clinic's cases. Every year, the clinic attracts more than 6,000 patients.

The color neutral and aesthetic X-ray protection glass RD 50 allows the easy supervision of the X-ray room in the Pediatric Cardiology section.

Protection from X-ray radiation

The clinic's own Pediatric Catheter Laboratory diagnoses and, depending upon the diagnosis, sometimes treats heart defects directly using a cardiac catheter. However, the use of X-rays for accurate diagnosis is a necessity, and it is precisely here where the radiation protection glass RD 50 made by Schott



Desag finds its application. A spacious cabinet equipped with various technical instruments and devices allows the easy monitoring of the X-ray room thanks to the enormous 4 m wide and 85 cm high (roughly 13 ft. wide and 3 ft. high) window made of RD 50 glass. The window consists of two panes, placed next to each other at the edges, which were cut at a 45° angle. For stability reasons, the RD 50 glass was 'sandwiched' between two panes of float glass. This process allowed the Gustav Graaf Co. of Hamburg to successfully produce the world's largest, continuous single RD 50 pane without any optical hindrance. The glass has a very high density owing to its high lead content at over 65 per cent. This allows the glass to have high absorption values in spite of its relatively small thickness, offering fully reliable protection from X-rays. The glass meets the IEC 61331-2 and DIN 6841 industrial standards ■

The shapes and colors liked by children create a cheerful atmosphere in the Heart and Diabetes Center.

