



Why the Contour Interaction Bars are Red

Contour Interaction Bars (or *Crowding Bars*) are most commonly black. However, on the *Hanks Paediatric Test Cards* those designed with *Contour Interaction Bars* have had the bars printed in red surrounding a black optotype.

The purpose of *Contour Interaction Bars* is to make the symbols more difficult to identify and thus produce results that are more comparable to a standard line chart. As a result, they are generally up to two lines worse than the measurements taken with single (uncrowded) symbols.

Once a decision has been made to use a chart with *Contour Interaction Bars* the idea of printing the bars in red is so that they induce a greater level of interest in visual acuity testing for young children.



The red colour was selected because scientific studies¹ have shown no statistical difference for clinical results between black and red bars - however there are differences if other colours are used (like green or yellow).

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References:

1. **Ruttum MS and Covert DJ:** "The Effect of Colored Crowding Bars on the HOTV Visual Acuity Test in Amblyopic Patients", *Journal of American Association for Pediatric Ophthalmology and Strabismus*, Volume 12, Issue 4, August 2008, Pages 361-364.