

Case Study

CEE plugs and sockets Durethan® B 40 SK – A sturdy connection



Fig. 1 "Quick-Connect"-System

The "quick-connect"-system of the Bals company consists of CEE-Plugs and sockets for current intensities of 16 and 32 amperes. Both the electrical conductors and the cable grip can be connected up without need for any screwed joints. The housing parts are also connected via a bayonet closure system, rather than a screwed joint, and simply have to be turned through a quarter-rotation. This innovative concept requires new material combinations for the housing and cable feed.

The housings are made of Durethan® B 40 SK, a specially-adapted PA 6 that meets the stringent requirements in terms of mechanical action, low-temperature toughness and tracking resistance, etc.

If cables of different thicknesses are to be tightly and permanently encapsulated, then the cable feeds must display a high resilience and low creep over a

Material: Durethan® B 40 SK

Producer: Bals

Industry: Electrical/Electronics

wide range of climatic conditions. These have therefore been produced in a TPU, for the first time, employing the two-component injection molding process. Metal anchorages integrated in the housing and the good adhesion achieved between the specially-selected combination of TPU and Durethan® grades ensure that an unusually robust and tight bond is obtained.

The high quality level that was evident throughout the development and design of the "quick-connect" system is also reflected in the choice of material and in the processing and fabrication steps. This guarantees the long-term functional performance of the plug-and-socket systems under the harshest of conditions - something which is additionally borne out by the VDE label.



This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided - especially that contained in our safety data and technical information sheets - and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

Trial Products (grade designations beginning with the codes DP, TP, KL or KU)

This is a Sales Product at the developmental stage (a Trial Product). For this reason, no assurances can be given as to type conformity, processability, long-term performance characteristics or other production or application parameters. No definitive statements can be made regarding the behavior of the product during processing or use. The purchaser/user uses the product entirely at his own risk. The marketing and continued supply of this material are not assured and may be discontinued at any time.

© = LANXESS Deutschland GmbH 2008 | SCP Business Unit | all rights reserved

www.durethan.com | www.pocan.com

Page 2 of 2 | Edition 17.12.2008 | TI 2005-005 EN

