

Another green initiative

Stuers now takes another step in becoming a greener company. We have already been certified compliant to ISO 14001 which confirms Struers' commitment to minimize environmental impacts in our day-to-day operations.

We are the first within this line of business to be ISO 14001 certified. We are also the first within our industry to have a CO₂ neutral website since we have become a participant in the initiative for CO₂ neutral websites. This means that carbon emissions from both our website and use of this website have been neutralized by the purchase of certified CO₂ offsets and by the building of new, renewable energy sources.

In this issue

CO ₂ neutral website	1
New products	2
Hardness Testing and Specimen Preparation Events 2010	3
	4

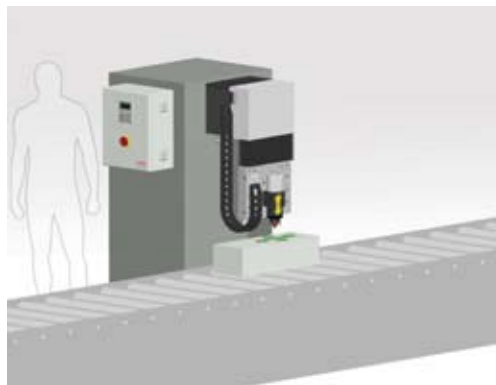


DuraPro - New Hardness Testing Modules for Inline Testing

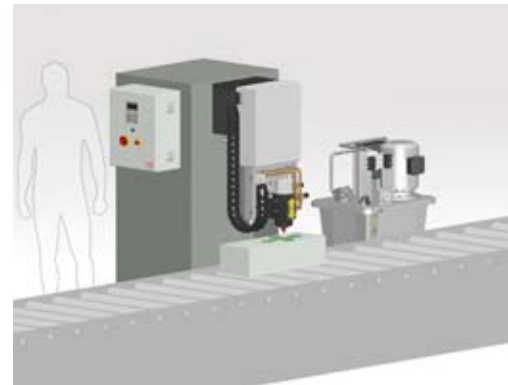
The DuraPro line are hardness testing modules for integration in automatic inline systems, for instance in combination with conveyor bands in production lines. The main advantage of inline testing is that the workpieces do not have to be removed from the production line for testing, and that virtually a 100% inspection of the parts can be performed.

The DuraPro module consists of a core hardness testing unit as well as a separate cabinet with a control unit. 4 models or configurations are available, to suit the individual needs. All models have fully automatic test cycles with automatic start of test cycle upon clamping.

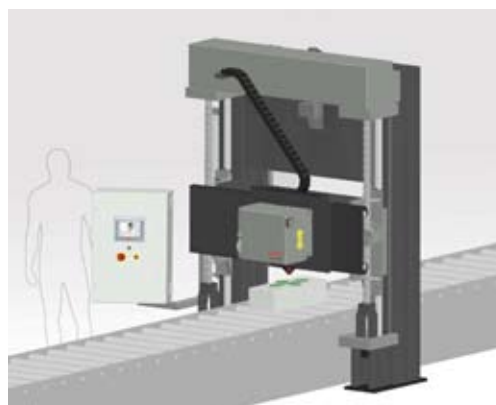
Read more on www.struers.com/durapro



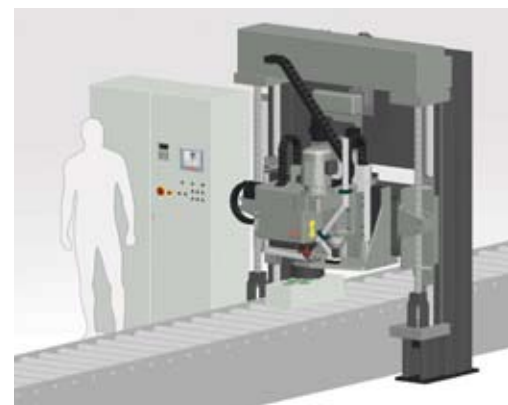
Example of DuraPro-100 install



Example of DuraPro-200 install



Example of DuraPro-500 install



Example of DuraPro-1000 install

New products

Struers covers the entire range of equipment and consumables for materialographic specimen preparation - from uncomplicated manual machines to sophisticated computerized preparation solutions. Struers is constantly working on improving existing and developing new products.

Transcopy Replica Foil

The Transcopy Replica Foil, used for non-destructive preparation, has a new design. Transcopy Replica Foil is used to make a replica of any polished and etched surface. It creates a permanent replication of microstructures, cracks and defects for future analysis and comparison in the laboratory.

The new foil is a modified acetate type which is thicker and therefore not so easy to dissolve. It is now colourless (instead of red) so it can more easily be examined in the PSM-2 microscope.

Read more about Non-destructive preparation in our product brochure [“On-site materialographic preparation and examination”](#).



FlexiForm

FlexiForm are new rectangular forms made of very flexible silicone rubber, which makes it very easy to remove the mounts. They have a high tear resistance which guarantees them a longer lifetime. The inner sides are polished, so the sides of the mounts are clear. The sides are straight which makes it easier to fasten the mounts in a specimen holder.

FlexiForm are especially suitable for use with acrylic cold mounting resins (ClaroCit, DuroCit and VersoCit) where they can be reused many times. They can also be used with epoxy resins. Available in three rectangular sizes which allows you to mount large and odd-shaped specimens.



Corrozip

We introduce a new additive for cooling fluid: Corrozip. It will replace the present Additive for Cooling Fluid without amine compounds. Corrozip is for universal use and is very similar to the present Additive for Cooling Fluid without amine compounds, but it has better no foaming properties. Our alternative product Corrozip-LF, for Low Foaming, is especially for band filters or for particularly difficult cutting where foam can be a problem.

Corrozip is an environment friendly product and it is therefore not covered by regulations regarding classification, labelling and safety data sheet.



Protecting caps

Red plastic caps to be used for protecting prepared cylindrical specimens under transport and/or storage. The caps are available in four sizes for: 25 mm dia., 30 mm dia., 40 mm dia. and 50 mm dia. mounts.



Read more...

about all our new products on www.struers.com/newproducts

Application

Struers application knowledge represents a cornerstone in our daily work - wherever it is, inside or outside the company. We offer a wide range of tools to share our knowledge, from on-line courses to group courses and seminars.

New Application Note



A new Application Note is now available, the fifteenth in our series, covering many applications and materials. This time the topic is hardness testing and specimen preparation.

The definition of the type of hardness indentation testing, which is considered in the application note: It is a measure of a material's resistance to plastic deformation, when a hard indenter penetrates into a softer material. The result obtained during testing will depend on the test used, i.e. the load and its duration, the type of indenter (geometry/material) and application of testing method. The hardness test used depends on the type of material, its condition and size.

Hardness testing is a useful tool for evaluation of materials it can provide information about the material as a general quality control of material after processing or after heat treatments. It is used in order to test hardenability of steel by

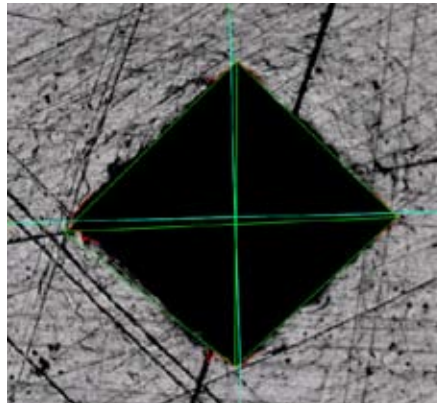
Jominy testing, the hardened depth of surface hardened steel and controlling the performance of welds. Also there is a relationship between the hardness and yield stress/ultimate tensile stress.

This Application Note is focusing on hardness testing of metals, the mechanical preparation of specimens and the different parameters influencing the indentation hardness testing result. Also a few typical applications for hardness testing are presented.

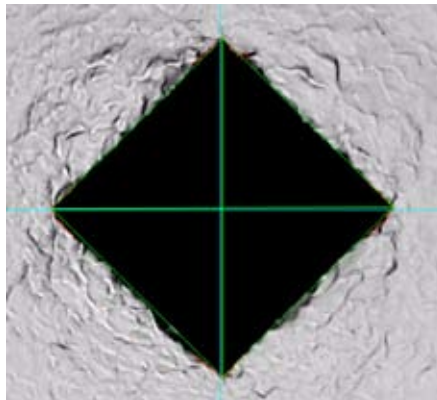
For more information, please download the whole Application Note here.

If you have any ideas for future Application Notes, please write an e-mail to Jesper.Christensen@struers.dk, and we will take your input into consideration, when selecting the next topic. If you want to share some of your findings and tips related to specimen preparation or hardness testing in future "Structure news" you are also welcome to contact Jesper Christensen.

a)



b)



Automatic evaluation of hardness for 0.5% carbon steel, HV10. For a) a rough surface preparation (MD-Largo/DiaPro Allegro/Largo, 9µm) b) a smooth surface (MD-Plus/DiaPro Plus, 3µm)

Structure news

is a quarterly newsletter from Struers, the world leader in materialography. The newsletter provides you with up-to-date information on materialography, applications and new innovative products. If you want more information about our products, please contact your local sales representative that you will find on www.struers.com/distributors

Materiallographic Events 2010

Meet Struers at courses, seminars and events all over the world.

Czech Republic, Rozoký u Prahy	Seminár o merení makro a mikro tvrdosti	27/04
Australia, Wollongong NSW	Equipment Road show	28/04 - 29/04
Germany, Stuttgart	Messe Control	04/05 - 07/05
China, Wuhan	Hardness Testing Seminar	10/05 - 21/05
Australia, Melbourne VIC	Equipment Road show	11/05 - 12/05
South Africa, Port Elisabeth	The Professional Materialographer	11/05 - 14/05
UK, Rotherham	The Professional Materialographer	18/05 - 20/05
China, Beijing	Hardness Testing Seminar	24/05 - 04/06
Slovakia, Nitra	Fair MSV Nitra	25/05 - 28/05
New Zealand, Auckland NZ	Equipment Road show	02/06 - 03/06
Turkey, Istanbul	The Professional Materialographer	02/06 - 04/06
China, Shenyang	Hardness Testing Seminar	07/06 - 18/06
UK, Rotherham	The Professional Materialographer	15/06 - 17/06
China, Shanghai	The Professional Materialographer	29/06 - 01/07
UK, Rotherham	The Professional Materialographer	27/07 - 29/07
USA, Portland, OR	Microscopy & Microanalysis 2010	01/08 - 05/08
China, Shanghai	The Professional Materialographer	10/08 - 12/08
UK, Rotherham	The Professional Materialographer	17/08 - 19/08
Denmark, Ballerup	Struers Material Days	31/08 - 01/09
UK, Rotherham	The Professional Materialographer	07/09 - 09/09
Czech Republic, Brno	Fair MSV Brno	13/09 - 17/09
Denmark, Ballerup	The Professional Materialographer Extended	13/09 - 16/09
Poland, Kielce	Fair Control-Tec	28/09 - 30/09
UK, Rotherham	The Professional Materialographer	05/10 - 07/10
Denmark, Ballerup	Seminar in Microelectronics	06/10
Germany, Wiesbaden	Härtereikolloquium	13/10 - 15/10
USA, Houston, TX	Materials Science & Technology (MS&T)	17/10 - 21/10
Sweden, Stockholm	Tekniska Mässan 2010	19/10 - 22/10
Sweden, Stockholm	Material day 2010	28/10
China, Shanghai	The Professional Materialographer	02/11 - 04/11
UK, Rotherham	The Professional Materialographer	02/11 - 04/11
Denmark, Ballerup	Seminar in SEM	04/11
USA, Dallas, TX	Int. Symposium for Testing & Failure Analysis (ISTFA)	14/11 - 18/11
Denmark, Ballerup	The Professional Materialographer II	16/11 - 18/11
France, Champigny sur Marne	Metallographer training course	16/11 - 18/11
Schweiz, Basel	Messe Prodex	16/11 - 20/11
UK, Rotherham	The Professional Materialographer	30/11 - 02/12