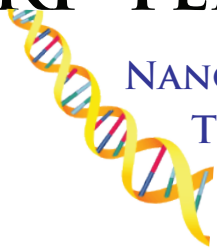


RP TEMPERING™ TECHNOLOGY NEWS



NANO-COMPOSITE
TECHNOLOGY

VOLUME 23

SOLID FREEFORM ADDITIVE TECHNOLOGY &
PATENT PENDING ENGINEERING TECHNIQUE

SEPTEMBER 2008

RP Tempering™ is Growing in Europe

The European team expands as Alphacam and Temperman join forces. Alphacam is very well known throughout Europe for their expertise selling and supporting the Rapid Product Development and 3D Printing Rapid Prototyping industries.

Baran Dag says that with the increasing number of service bureaus, OEM's and others using RP Tempering™, along with the innovative materials and processes, the excitement level is reaching new heights for the RP experience, regardless if they have a 3D Printer or other system.

Mrs. Jana Jancke and Mr. Stefan Busan from Alphacam company started to evaluate RP Tempering™ technologies over a year ago with Baran Dag. Jana and Stefan started to work on RP Tempering™ in order to provide technical support to the whole European market. Stefan visited PAR3 in the US along with Baran to be trained and gain knowledge from the inventor of RP Tempering™ Technologies,

Earl Dunlap. Mr. Ferhat Dag who is originally from Temperman company, will now be with the team at Alphacam, aiding them in all aspects of the business.

RP Tempering™ Products are readily available and in stock at Alphacam who is exclusively supplying all of Europe (and any German speaking countries), Spain, Mid East (where permissible) and more.

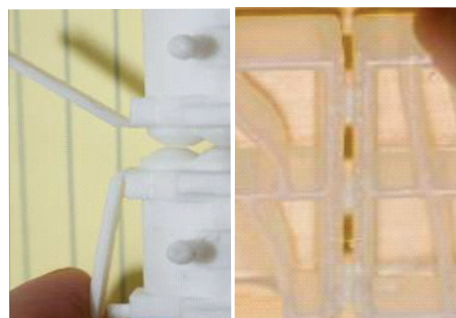
This business agreement between all 3 companies has the potential to surpass the RP Tempering™ market in the USA. The addition of Alphacam's technical support and distribution, when combined with Temperman and PAR3 will offer many advantages.

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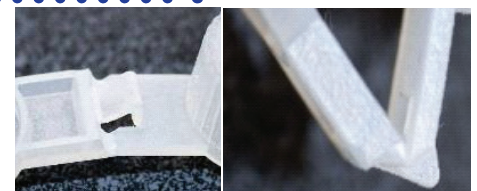
Living Hinges Designs That Optimize RP Tempering™

RP Tempering™ living hinge technique for applying the tempering materials will work with most RP/SFF materials including: LS, SL, Fullcure and FDM. RP Tempering™ materials and techniques do not work with every living hinge design type. A good design for a functional and long lasting living hinge is one that has a straight landing or strap type design. The following pictures show this type of living hinge design. Straight strap type designs about .010" - .015" thick will be fully functional and last over 100 cycles.



Strap Design

The following living hinge design that springs open will work but, they take a full day of careful manipulation to make them fully functional.



Spring Design

The pop living hinge design pictured below will not work. If the connecting strap follows a radius around the cap then RP Tempering™ materials and techniques will not work. The connecting strap has to be straight.



Pop Design

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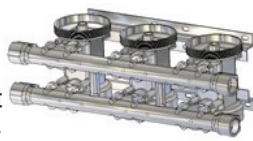
Try Our New RP Tempering™ Kits

Living Hinge Kits Sealing Porosity Kits
High Temp Kits Mechanical Properties

PAR3 Technology, Inc. Design and Engineering Services

The professionals at PAR3 can support all or any part of your product development needs. Our focus is to help create, analyze and modify a design that can meet and/or exceed the criteria and expectations of our customers. The PAR3 Design and Analysis engineers use numerous tools (creative and technical) which aid in creating the best solutions for the project. The 3D CAD and Analysis Software capabilities are Pro Engineer "ProE", SolidWorks, Comos, Fluent, Ansys and CF Design.

Mechanical Design and Engineering Services: Mechanical Design, Electro-mechanical Design, 3D CAD Design, Complex Surfacing, Complex Assembly Design, Design for Six Sigma "DFSS", Robust Design, Statisti-



cal Tolerancing, Rapid Ideation® Process, Cost Reduction Programs, "DFM" Design for Manufacture, Manufacturing Engineering Consulting, Industrial Engineering Consulting, Project & Platform Management, Material and Process Cost Reduction, Complete Products & Product Lines Support, Individual Components and/or Applications, Current or New Product Consideration.

Conceptual Development and Ideas

Generation for Products and/or Processes: Our Rapid Ideation® Process helps companies generate numerous viable ideas in a very short period of time. Then a decision management process takes into consideration cost, materials, process, manufacturability, and marketing features. Our focus



is to generate concepts for product functionality and manufacturability as well as concepts for new manufacturing processes and potential materials. Conceptual ideas can be used for: Products, Manufacturing Processes, Shaping, Ergonomics, Assembly and/or BOM Development, Sketches and Illustrations, Competitive Product Analysis, Brainstorming, Exploration of color, shape, style & function, Design for current and future ideas, Human Factors, Safety, and Interface.



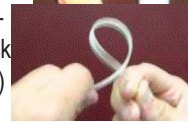
Objet Fullcure™ Resin Parts, Users Benefit

Objet users globally are benefiting from the use of RP Tempering™ Technologies. The tempering materials and processes can enhance the mechanical properties/strength, thermal properties and environmental/chemical resistance of Fullcure resin parts. Objet published an independent article complete with pictures about RP Tempering™ Technologies applied to Fullcure parts.

The following are pictures from the Objet press release. It can

be found on the Objet Website at www.Objet.com or at the www.RPTempering.com website by clicking on the press and news letter tab.

These pictures show a technician at Objet Geometries spraying Proto-Plasma-Rx™ onto a zip lock wire tie (.030" thin wall part) made on an Objet Printer out of Fullcure™ resin. After applying the tempering materials and technique, this wire tie was fully functional. The wire tie that was not



tempered broke and was not as functional.



Living Hinge - .020" Ornament Hanger



Squeeze Bottle

Objet demonstrates in their article that parts made out of Fullcure Resins with applied tempering materials and techniques will yield fully functional living hinges, thin wall ornament hangers and squeezable fully functional bottles that will hold fluids.

Overview

New process called RP Tempering speeds up processing time, reduces costs, and propose to produce a stronger RP part.

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