



RUBA Thermoplast AG

**your top cap supplier
&
professional toolmaker**



RUBA - Bio tests & Division of Bio-resin

An eco-friendly BIO cap should meet following requirements:

- One of the most important requirements of the BIO-cap is food approval, so it can be used for packaging in the pharma- and cosmetics industry.
- The prices of the caps should be competitive to our standard products.
- The used material should be able to be processed with our injection molding tools and standard processes without 100% control of finished caps.

Bio tests

Today there are a whole range of bio-based resins on the market. In the last few years we have carried out several tests and we continue further with a new ones. However, we note that not all Bio-resins are ideally suited for injection molding technology. The following table shows the successful results of our experiments: We advise and suggest to carry out to provide a sampling before of start of series production.

ArcBiox B2004 PLA

Bio-content 59%
Food approved
Good alternative for PPC



Braskem SHC7260 High-density PE*

BCC (Biobased carbon content): 94.5%
determined according to ASTM D6866)

Terralene WF3516 Wood fibre PE

BCC (Biobased carbon content): 10%





Terralene PP3505
BIO-based PP

BIO-Carbon content 33%

Bioplast GS 2189
Vegetable base/Starch

BCC (Biobased carbon
content): 69%



Arboblend 1548X
Wood base (Lignin)

BCC (Biobased carbon
content): 95%

Are you confronted with new customer requests?





Based on your individual need and requirements, we help you to take these challenges and will be happy to test some new materials for you.



Requirements in the packaging industry

The new packaging legislation in the European Union is not just about the reuse of plastics, but also about the purity of the packaging. Furthermore, there are other essential aspects for sustainability, such as the weight reduction. General trends with CO2 neutral plastics will surely be important as well.





There is currently a general uncertainty about the future economic development. Almost all countries have their own regulations. Likewise, the world's largest beauty and cosmetics companies have their own standards.

Theme	RUBA solutions	Link to flyer
Increase of PCRpackaging	Successful tests made with PCR-PP PCR-PE and Bio-PE/PP PCR-PET	
Sorting purity of packaging	Successfull tests with PE caps for your PE tube. RUBA recommends mat versions.	
Weight reduction of caps / packaging	New ECOline with up to 70% less material, also available as PE, Bio-PE/PP & PCR cap.	
Caps CO2 neutral without crude oil	Successfull tests since 2009	

Bioplastics and their division

Since 2009 various experiments have been carried out with different alternative resins. This time, the focus was on bioplastics and their categories.

We had the possibility to participate in the seminar at the institute of materials technology and plastics processing (IWK Rapperswil, Switzerland) and would like introduce you herewith a short summary. Compostable resins which are completely biodegradable by microorganisms. (EN 13432).

<p>Not biodegradable & with a neutral CO2 polymers</p> <p>Terralene PA4.10</p> 	<p>Biodegradable & with a neutral CO2 polymers</p> <p>PLA, PHA, starch, cellulose, lignin</p> 
<p>Not biodegradable & from oil</p> <p>Proportion of recycled material with a good eco-balance (PCR post consumer recycled)</p> 	<p>Biodegradable & from oil</p> <p>PBAT, PBS, Bioflex</p> 

Are you confronted with new customer inquiries?

Based on your individual needs, we can help you to take on these challenges and will be gladly advise you on your testing.