

"You can suck on a sweet, but you can't chew a steak, because then your jaws would move too much."

# Sweaty



- The lead singer of Eurovision Song Contest winner, Lordi, Tomi Putaansuu claims he created the masks and costumes for his band without any knowledge of chemistry. Behind the impressive end-product, however, there lies some extensive experimental chemistry.
- Lordi's monsters are human as well. They perspire and need to use the toilet. While R&D has made some things easier, there's still the challenge of how to remove the smell of rubber.

Lordin haastattelu suomeksi:  
[www.kemia-lehti.fi](http://www.kemia-lehti.fi)

# Monster

## Latex Makes Even a Monster Swelter



Teija Horppu

The transformation of ordinary Finnish taxpayers into beasts of the Apocalypse is a long and precise process.

The architect and sculptor of the monster figures is the band's lead singer, Mr **Lordi** alias **Tomi Putaansuu**. He created the masks for all the band members, and single-handedly manufactures the costumes too.

The masks are disposable and Putaansuu spends hours making and fitting them before each show. Being Lordi was a full-time job at the Eurovision Song Contest in Athens. The whole team had to wake up at five o'clock in the morning to dress and be moulded into their characters.

It is also a slow transformation back to being an ordinary taxpayer again, as even removing the masks takes about one and a half hours. Removing the rubber from the hair line and beard takes the longest, but the area around the eyes also calls for care, as the lower eyelashes tend to come off with the mask. But then what does a monster need eyelashes for anyway?

The main material for both the masks and the costumes is rubber. You can get an idea of what it feels like to be a Lordi member by pressing your face against a condom or by letting some glue dry on your skin.

And then there is the smell. The artists perspire a lot under their rubber costumes, and as the tour progresses the stench gets worse and worse. The costumes cannot be washed or cleaned, because the sweat alone is enough to change the rubber into a plasticine kind of paste. The costumes also need to be repaired weekly, sometimes daily.

Lordi's current costumes have been in use since the beginning of this year.

"They smell horrible," Putaansuu admits.

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Amen, Kita, Mr Lordi, Ox, and Awa will appear in public only in their costumes and masks. Since winning the European Song Contest in Athens, the band has been in great demand and the latex costumes have hardly had time to dry between shows.



Sami Hokkanen | Petri Haggrén



Sami Hokkanen



**Tomi Putaansuu (centre) has made masks since he was a child and has learned a lot over the years, such as not to apply a plaster cast directly to the skin.**

### Mummy's eye shadow and cling film

But back to business and mask-making. Tomi Putaansuu has been doing it since he was a child, learning mainly by trial and error. He began by using his mother's eye shadow, advancing later to paste, glue, paper, and other materials. Putaansuu cut fangs and tusks from milk cartons, and still believes the results he got back then were rather good.

Naturally, there were minor setbacks. Winding green cling film around his hands and feet created a great impression, but when he continued up to his face and forgot to make holes for his eyes and nose, he was left gasping for breath and realised it was not perhaps such a good idea after all. Luckily his friends came to rescue him.

There were other mistakes too, as Putaansuu's English was not up to understanding all the details in the books he consulted on

**"The only time you can really get away with wearing an old mask is a late night gig, when the audience has had plenty to drink."**

masks and make-up. With the help of friends willing to act as guinea pigs, he learned that it is not a good idea to apply plaster cast directly on the skin, as it is next to impossible to remove later.

The main material of the Lordi masks is latex—liquid rubber—and a two-component latex foam that Putaansuu first discovered in his teens in the 1980s. The teenager's accomplishments were so stunning that the Make-up School of Helsinki told him to come back later when he was a bit older. Not as a pupil, but as a teacher.

### Good stuff in the kitchen

For making a good mask you need a lot more than just latex. Putaansuu quickly lists about a dozen other things you need: clay, plaster, water, release agents, powders, thinners, skin glues, grease paints, covering varnishes, and even vaseline.

The choice of covering varnish depends on the result you want. Mr Lordi's shiny, slimy mask needs a different product than the matte mask used for the drummer, Kita.

Masks and mask materials are not big business in Finland as no science fiction movies are produced here. But Putaansuu is a regular customer of an existing shop for mask-making materials.

There is no reason to stick to official supplies, though.

"We usually try all sorts of things. Then we tell each other what we've discovered and exchange tips. It is a good idea to experiment and sometimes you can find surprisingly good stuff in your kitchen," Putaansuu says.

### Making a mask is like sculpting

To make a mask, you begin with making a mould. Taking a cast of your face for this is the most important phase, according to Tomi Putaansuu.

A prosthesis is built up on top of the plaster cast, and is used for making the mould, which is the basis of the mask. Modelling the mask of Mr Lordi is accurate work. The horns are moulded at eyebrow level, and then you add some roughness on top.

Putaansuu says the most important thing about making a mask is the ability to think three-dimensionally.

"But making a prosthesis mask is two-dimensional, as everything looks better in two dimensions. You can see it, when you look at a mask with one eye closed," he says.

"Making a mask is like sculpting. My understanding of chemistry and how substanc-

es react with each other is zero," Putaansuu claims. "I do know though that highly inflammable substances should not be handled close to a cigarette lighter."

Colouring and painting the mask is also an important phase, and one that never really ends. There is always something to improve and modify.

The riskiest part is fitting the mask on a person's face. This is done using the same substance that it is made of, latex. The biggest mistake you can make is to glue it in the wrong place or position it wrongly. The most difficult thing is to get the eye area right, according to Putaansuu.

It is not a good idea to be tired when the mask is being attached, as yawning removes the mask from the sides of your nose. It is also difficult to eat with a mask on.

"You can suck on a sweet, but you can't chew a steak, because then your jaws would move too much," Putaansuu says.

### Rompers and leotards underneath

Tomi Putaansuu has had many successes with his masks. One of these was the creation of the character of *Awa*, the keyboard player and the only female member of the band.

"It was great to see how the mask and costume gave her a totally new character," he says.

A mask is more or less disposable. Every time it is fastened, it gets thicker, and the thicker it gets, the greater the risk there is of it coming off.

"If you have to, you can use the same mask two or three times," Putaansuu says, "but you can't use an old mask when you're being photographed or interviewed on television. The only time you can really get away with wearing an old mask is a late night gig, when the audience has had plenty to drink."

The costumes, however, are not disposable. They are based on leotards and rompers made of synthetic material, with the rubber components fastened or glued on. Only *Awa's* costume is made of normal clothing material.

An R&D group works under the supervision of Putaansuu to make the costumes more comfortable. Mr Lordi's current costume has more cloth next to the skin than the previous one did and has more holes and perforations in it to improve ventilation. The most significant improvement to the earlier costume is simple, but very important.

"A fly makes life a whole lot easier."

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# Less Is More in Pyrotechnical Special Effects

When Lordi spread his beast wings in the Eurovision Song Contest, the monster-like show climaxed in a ‘World War’ created by **Markku Aalto** of Oy Pyroman Finland Ltd. Pyroman uses its entire spectrum of know-how during Lordi gigs. The band had 10 gigs in Athens and each involved 150 separate special effects. Today, each gig now has up to 176 special effects.

But you will not see anything at a Lordi gig that you could not see at a gig of any other band. Pyrotechnics is a very conservative field. Firework displays are believed to have been organised for more than a thousand years, and the last few decades have not brought many new innovations.

“The only significant change during the 10 years that I’ve been in the business have been digitally operated effects, which have replaced analogue fuses, and which mean that we can ignite fuses in any order we like,” Aalto explains.

## No big bangs, but controlled burning

Markku Aalto was studying to be an electrician before he turned to pyrotechnics. One of his assistants has an army background and another one is a blacksmith.

But you cannot get involved in pyrotechnics just like that. The person in charge must have an E-class qualification and be competent in handling explosives—including laboratory and industrial explosives and effects. The qualification is supervised by the Ministry of Labour.

Qualification is obligatory, even though almost all effects are ready-made industrial goods. Pyroman Finland manufactures a product called the Flame Projector, in which an ignition pearl makes smokeless gunpowder burn in the shape of a massive pillar.

Pyrotechnics is first and foremost a form of controlled burning. There is very little exploding and banging. A controlled



Heli Sorjonen / YLE Kuva- ja video

result does not need lots of material, in fact, often only a few grammes is enough.

The cardboard case of a firework contains the fuel, a substance that releases colour chemicals, and a binding substance. The colours are created by different metal compounds. Red, for example, is produced by strontium nitrate, green by barium nitrate, yellow by different sodium compounds, and blue by copper compounds.

## Preparing by scaring

Working with pyrotechnics is not for Sloppy Joe.

“We’re responsible for the safety of thousands of people,” Markku Aalto stresses. “That’s why we draw up a kind of horror scenario before each event and plan what to do in any situation.

“We always stick to safety distances. The greatest risk is if the materials used on stage are not fire-proofed.”

Being prepared has proved its point. In 2003, at the Emma Gala, Lordi’s special effects burst into flames in front of a televi-

**Special pyrotechnic effects use a minimal amount of chemical substances to create a maximum impact. The preparation for each show begins with drawing up a safety plan.**

sion audience. The flames reached a couple of metres, but luckily one fire extinguisher was enough to save the situation. The broadcast was able to continue uninterrupted and many viewers did not even notice that anything untoward had happened.

Given the risk involved, you might have thought it would be hard to get permission to use pyrotechnics at an event like the Eurovision Song Contest.

“Nobody questioned our decisions in Athens, though, and no one thought our effects too wild,” Aalto says. “The only condition they imposed was that we should shoot each rehearsal and show the same way, and that’s what we did.” □

Teija Horppu