



## THE NEW TRACK OF DAEGU FOR THE 2011 IAAF WORLD CHAMPIONSHIPS

Dates: **8/27/2011 - 9/4/2011**  
 Location: **Daegu, Korea**  
 Track: **Super X Performance**

IAAF World Athletics Championships  
 (Republic of Korea)

WHAT DOES MONDO SPA, DAEGU AND POLIMERI EUROPA HAVE IN COMMON? AT FIRST GLANCE THE ANSWER COULD SEEM RATHER ARDUOUS, BUT ESSENTIALLY IT'S NOT SO ARDUOUS AT ALL.

### THE PUZZLE

To tell the truth, the link between the running world champion and the company of Alba, known everywhere for the production of sport floorings (but also for civilian use) is rather natural. Also Mondo is the official supplier of tracks and equipment for the 2011 IAAF World Championships that takes place from August 27th to September 4th in Daegu, and so another piece of the puzzle is in place. But Polimeri Europa? What does the biggest Italian petrochemical company have to do with athletics, tracks, records and Daegu 2011? We will now tell you, in detail.

### THE LINKS OF CHEMISTRY

In a particularly sultry morning in July we decided to go to San Donato Milanese, a town next to the city of Lombardia, where you can find the headquarters of Eni. At this point you might say, "How? It's not fair! Another piece!" In fact, we will solve this mystery immediately. Two calls and a glance at the website [www.polimerieuropa.com](http://www.polimerieuropa.com) were enough to discover that the company we are talking about belongs to Eni, and so we are here

A very kind lady escorts us into the company and accompanies us to meet **Antonio Protopapa**, Commercial Director of the company. He greets us with a smile, offers a coffee, fantastic pastries and invites us into a nice conference room. We take out our notebooks for the appointments and begin

- What does Polimeri Europa have to do with athletics and the Mondo tracks? – We ask him immediately to get to the heart of the matter. - It has a lot to do with them – answers, smiling, the eng. Protopapa. - The links of the chemistry are often surprising. Imagine that 2011 is the international year of chemistry and we are working on a campaign with this claim: chemistry of links, links of chemistry. But let us look back a bit. There is chemistry and research everywhere, in the majority of the objects around us. Now maybe you realize, that you are writing with a pen that in the soft and rubbery part that you hold among the fingers, contains a distant relative of the Mondo tracks. Very often chemistry is associated to pollution and we attribute only negative connotations to it, but we should remember that the polyethylene that is at the base of the plastic bags left around by those who don't care about the environment, serves also for the construction of valves that are in the artificial hearts that save thousands of lives every day. This is only to mention a few of the applications."



## TO RUN ON POLYMERS

The answer of Protopapa is completely unexpected. In fact, it would be unthinkable to imagine a world without plastic. The story is interesting and we became more curious. So we asked him to continue: "Let's start with the beginning – he says-. First of all, let me explain what Polimeri Europa deals with, so that everything will appear more linear. This company has three main areas of interest. The polyethylene, which is commonly called plastic, the **styrenics** that to simplify we call polystyrene, and finally the elastomers, rubber, tires, athletic tracks. In practice, we supply Mondo with polymers that are not only at the base of the track on which the champions will run in Daegu 2011. We could also talk about the tracks for the 2004 Olympic Games in Athens, the 2008 Olympic Games in Beijing, and also the 2012 Olympic Games in London, just to mention the most extraordinary ones.

## AT THE ORIGIN OF ALL

Also at this point, the last piece of our imaginary puzzle is arranged. Now we are very curious and we've decided to see the path that leads to the construction of an athletic track from start to finish. Now we'd like to know what is behind, or better, in the surface that in Daegu will be ran on by the **f a s t e s t f e e t i n t h e w o r l d**. "Polimeri Europa" has a great advantage – Protopapa tells us – As it is part of Eni, we have a direct access to great parts of the raw material that allows us to create the polymers: starting from the oil that arrives directly from the refinery, an oil plant where it undergoes the cracking, the extraction of monomers through a special distillation tower called the 'cracker', as it breaks large hydrocarbons into smaller pieces. Then in our plant in Ravenna, which, among others, is one of the most important plants in Europe for the production of synthetic rubbers. They go through a chemical process called polymerization. From the monomers we obtain polymers that will have different characteristics according to their intended use." We tried to imagine the polymers that arrive from Ravenna to the Labs of Alba, but we failed. What is their form? How do they arrive at the Mondo plants? "They are blocks of 30 Kg, - tells Protopapa – We send the blocks to Alba in a container with a 20/22 pallet of 1,050 kg each. Consider that this is the raw material, so in this form it's rather useless, but this is the most important to obtain the desired result."

## AT THE HEAD OF MONDO

Now we know much more than before. Definitely. We know Polimeri Europa and we understand what the raw materials are that are sent to Mondo, but at this point we need to get to the end of our journey. So we go to Alba to meet Gianpiero Gambino, developer of the track- Mondotrack FTX used for the Beijing Olympic Games and the surface Super X Performance for Daegu 2011. Gambino tells us what happens to the base of the polymers once they arrive in the plants. "First of all, we proceed with quality control," tells Gambino. "This is a system that allows us to evaluate what the **e x p e r t s c a l l M o o n e y v i s c o s i t y**." "Viscosity is a fundamental parameter for the treatment – continues Gambino. – From it depends the incorporation capacity of other materials inside, that have high consistency and can be powders, liquids, etc. From the viscosity depends the workability, the dispersion and the final characteristics of the track."

## FROM THE MIXTURE TO THE TRACK

Once we have performed the control, Mondo creates a mixture adding other materials to the newly arrived polymers: carbon black, antioxidants, accelerators, additives that improve, for example, the UV resistance for the outdoor tracks, pigments to obtain different colors, etc. These "ingredients" of high viscose consistency end up in a closed mixer (Banbury), that mixes them. "It's something like a great kneader," tells Gambino. "Once we obtain the mixture, we pass to the following phase called calendaring that serves to give it its shape. Pay attention. In this phase our track is still not ready. The mixture now must be vulcanized. An operation that allows to fix definitively the shape of the rubber, and to 'set' its level of elasticity, which is a fundamental component for the athletic track."

## A TRACK FOR CHAMPIONS

The restitution of the strength exercised by the foot during the stride is facilitated by the level of elasticity that we gave to the rubber during the vulcanization process. In addition, to produce our track product range in our Alba plant has an enormous advantage. We are able to maintain a high, and mainly constant, quality standard. We can install tracks in every part of the world and in every season of the year, but the result will always be identical, as the surfaces always come from our plant. They are transported in the form of rolls, which all have the characteristics that we've outlined. All the other concurrent companies produce casted tracks. In fact, they are prepared onsite using polyurethanes. This involves a series of variables due to climate changes that, by their own nature, can't provide the same standard that we can ensure in a controlled high quality environment. This is the reason why we are sure that the new track of Daegu 2011, after leaving from Ravenna in the form of polymers, manufactured in our Alba plants and then transported to the Korean soil, will be able to impress the public and the athletes that will participate in the 2011 IAAF World Championships in Daegu exactly in the same way as it did during the 2008 Olympic Games in Beijing!







