



Information on Sandblasting

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INFORMATION ON JEANS SANDBLASTING

A) What is sandblasting?

As the name implies, sandblasting is an abrasive process to smooth or form surfaces whereby sand is blasted under high pressure. Sandblasting has traditionally been used in construction, for metal and ceramics works among others. Natural sand contains the mineral silica. Despite health risks, under EU directive, sandblasting is allowed provided that the abrasive materials contain less than 1% silica, in the US less than 0.5% silica and protection gear is provided.

B) What is jeans sandblasting?

In particular, jeans sandblasting is defined as the erosive/abrasive process applied to denim by air compressors blowing out sand under pressure in order to bleach and to batter the denim.

According to the Turkish Solidarity Committee of Sandblasting Labourers, the sand used to sandblast in Turkey contains up to 80% silica.

In many countries like Turkey and Bangladesh, jeans sandblasting is done manually. Hereby, workers aim tubes/'guns' and fire sand under high pressure at jeans; dust enters the environment.

C) What are the health risks? What is silicosis?

Exposure to silica dust causes silicosis in the lungs as workers inhale the dust.

Silicosis was diagnosed in association with denim sandblasting for the first time in Turkey in 2005. A doctor noted that mostly young male workers, who had worked in jeans sweatshops, fell ill. Earlier, they were misdiagnosed of tuberculosis. Until then, silicosis had been associated with work in mines and on construction sites as well as with manufacturing of glass and ceramics. Silicosis *"is an incurable lung disease caused by inhalation of dust containing free crystalline silica. It is irreversible and, moreover, the disease progresses even when exposure stops. Extremely high exposures are associated with much shorter latency and more rapid disease progression. (...) Silicosis results in conditions such as lung fibrosis and emphysema. (...) In later stages the critical condition can become disabling and is often fatal."* ([WHO, Fact sheet No 238, May 2000](#))



Workers die because they cannot breathe properly anymore. There is no known cure.

The illness generally occurs after 20 to 30 years of exposure in the mining industry. However, when exposed to intense dust workers fall ill sooner. In Turkey sandblasting workers have fallen ill even after a time period as short as six months.

Silicosis is classified as an occupational disease. The WHO and ILO have launched an International Programme on Global Elimination of Silicosis in 1995 but so far does not seem to include activities on silicosis in the garment industry.

D) Why jeans sandblasting?

Multinational garment companies demand sandblasted jeans. In comparison to other techniques, sandblasting achieves a very precise bleached look. Applying sandblasting, particular parts of denim can be treated while others are left out. This way special patterns and effects as demanded by designers can be achieved. In contrast, stone-washing achieves a homogenous worn-out look.

Since the health risks are not taken into account, sandblasting is a very cheap process as silica-rich sand is not expensive and manual sandblasting requires only simple techniques. Yet, jeans in the worn-out/vintage look can be sold at a much higher retail price – up to tripling the value.

E) What is the situation in Turkey?

In Turkey jeans have been sandblasted in small and not registered sweatshops in the informal economy - particularly in the beginning of the 2000s. Due to raised awareness and a public campaign, the Ministry of Health banned jeans sandblasting in March 2009.

It is estimated that between 8,000 and 10,000 workers have been working in sandblasting workshops in the past decade. The majority has been employed informally; foreign and child workers are employed illegally. 4000 to 5,000 are estimated to be affected by silicosis. However, most workers are not aware of the risks. The Solidarity Committee has reached 550 affected workers and knows of at least 46 cases of death by November 2010. However, the Solidarity Committee faces difficulties in reaching affected workers - also because some workers are migrant workers from Romania, Moldavia, Azerbaijan and Georgia.

In January 2010, the Turkish Ministry of Health enacted a bye-law to provide every silicosis patient with health services free of charge regardless of their social security status. The Solidarity Committee had campaigned for such a law as sandblasting labourers had not been covered earlier.

Sandblasting labourers still face difficulties. As they had worked without formal contracts, they are not covered by social security and do not receive any pensions. In contrast, they have to file lawsuits to demand disability pensions. At the end of September 2010, Yılmaz Dimbir (32 years old) who had sandblasted jeans at a non-registered factory and has fallen sick of silicosis won a court case as the first affected worker: He has been rewarded social security as if he had been a registered worker.



F) Who are in the Solidarity Committee of Sandblasting Laborers?

The Solidarity Committee was formed in June 2008 to campaign against jeans sandblasting in Turkey and worldwide. The Solidarity Committee brings together affected workers, medical doctors of occupational medicine, lawyers, journalists, musicians, unionists, etc.. They engage in broad awareness-raising activities and aim at organising sandblasting workers. While they have achieved the first success with the prohibition of jeans sandblasting in Turkey, they continue to support sick workers getting legal access to compensations and disability pensions.

G) How is the situation worldwide?

Research among the CCC partners in producing countries shows that jeans sandblasting has been or is taking place in Turkey (now legally banned), Bangladesh, Mexico, and Cambodia. Research from the Swedish NGO Fair Trade Center confirmed that sandblasting has been taking place in China, Bangladesh and Pakistan.

The Turkish Solidarity Committee believes that sandblasting in the garment sector also takes place in China, Bangladesh, India, Indonesia and Mexico.

Since the legal ban in Turkey (March 2009), jeans producers have reportedly moved their sandblasting orders from Turkey to Egypt, Jordan, Syria, Bangladesh and China.