

**Lowara**

---



**ITT Industries**

*Engineered for life*

# **TEAR/GRINDING TEST**

## **G209T6T2-J7AA0**

The grinding test made by the grinder pump type G209T6T2-J7AA0 must show, into the standard working conditions, its reliability, fixing as follow:

- Power of rend of the cutting system
- Power of rend on different materials

### 1 Selection of working conditions

Fuid:

- Sewage Water containing different materials to grind

#### 1.1 Types of materials used for the test:

<b>Fabrics with sewings</b>	<ul style="list-style-type: none"> <li>❖ Cotton</li> <li>❖ Wollen fabric + acrylic</li> <li>❖ Poliammide 95%+elastomer 5% (collants)</li> </ul>
<b>Paper and cellulose fibres</b>	<ul style="list-style-type: none"> <li>❖ Carton</li> <li>❖ Sanitary towel</li> <li>❖ Terry towelling (cotton+cellulose)</li> </ul>
<b>Latex</b>	<ul style="list-style-type: none"> <li>❖ Condom</li> <li>❖ Latex glovers</li> </ul>
<b>Various materials</b>	<ul style="list-style-type: none"> <li>❖ Viscose /cotton/polyester/polyamide</li> </ul>

## 1.2 Duty point

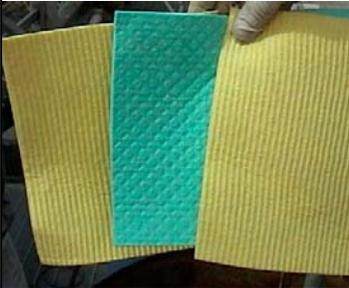
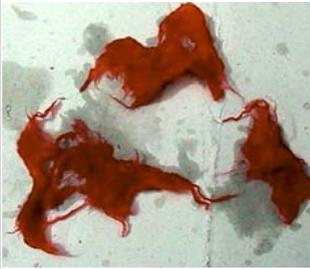
The duty point perform into the pump parameters

## 1.3 Test result:

The test is showed as follow: by times, dimensions and pictures for any used material:

<b>Material</b>	N° units	Time of grinding	Ground	Clogging	Material dimension	Residual dimension	Note
<b>cotton</b>	<b>1</b>	<b>4'39''</b>	<b>100%</b>	<b>NO</b>			
					<b>cm.45x65</b>	<b>cm 1/2</b>	
<b>Viscose/ cotton/ polyester/ polyamide (mocho Vileda)</b>	<b>1</b>	<b>22''</b>	<b>100%</b>	<b>NO</b>			
					<b>cm.15x25</b>	<b>cm.2</b>	

<b>Material</b>	<b>N° Units</b>	<b>Time of grinding</b>	<b>Ground</b>	<b>Clogging</b>	<b>Material dimension</b>	<b>Residual dimension</b>	<b>Note</b>
<b>Latex glover</b> <b>*pict.1</b>	<b>4</b>	<b>1'24''</b>	<b>60%</b>	<b>NO</b>			
					<b>cm.10x20 (single)</b>	<b>cm.2/3</b>	<b>Twisted residuals</b>
<b>Condom</b>	<b>12</b>	<b>59''</b>	<b>100%</b>	<b>NO</b>			
					<b>cm.3x15</b>	<b>cm.2/3</b>	
<b>Sanitary towel</b> <b>*pict.2</b>	<b>6</b>	<b>3'15''</b>	<b>60%</b>	<b>NO</b>			
					<b>cm.10x20</b>	<b>cm. 2/3</b>	<b>Twisted residuals</b>

<b>Material</b>	N° units	Time of grinding	Ground	Clogging	Material dimension	Residual dimension	Note
<b>Nylon tights</b> <b>*pict.3</b>	2	3'17''	<b>50%</b>	NO			
					<b>cm.20x80</b>	<b>cm.2/3</b>	<b>Twisted residuals</b>
<b>Terry toweling</b>	3	21''	<b>100%</b>	NO			
					<b>cm.20x18</b>	<b>cm.2/3</b>	
<b>Wollen fabric+acrilic</b>	1	30''	<b>100%</b>	NO			
					<b>cm.50x50</b>	<b>cm.2/3</b>	

<b>Material</b>	N° units	Time of grinding	Ground	Clogging	Material dimension	Residual dimension	Note
<b>Corrugated carton</b>	1	20''	100%	NO			
					<b>cm.20x35</b>	<b>cm. 3</b>	
<b>Cotton wool</b> <b>*pict.4</b>	1	1'53''	<b>20%</b>	YES			
					<b>cm.17X35</b>		

## 2 monitorized elements:

2.1 Grinder

2.2 Impeller

2.3 Electric motor

2.4 Coupling feet system

**Remarks at the end of test:**

**Checked parts:**

**Grinder:** do not show any type of damage or wearing on the cutting blades/system.

**Impeller:** Unchanged after the test

**Electric motor:** At the end of the test has been made again the check of the electric strenght and the check of resistance over every phase. All the inspections have done a positive result.

**Coupling feet system:** During all the lenght of the test, the coupling feet system did not moved and did not show any anomaly.

The working conditions are intentionally very heavy in front of the same shwed on the technical catalogue, they show The good performance of the pump that ground all the used materials.

**NOTE:**

**\*pict.1/2/3/4** concerning the grinding of the different used materials, it happen only in the beginning, because some materials, like the elastomer do not allow (for its nature), a complete grinding, twisting the material itself. In the case of the cotton wool, not only the grinding did not happen, but at the same time this material clog the grinder as well the impeller, for consequence of that, the pump has been shut off because there was not anymore the water passage.

**Referring regulations:**

UNI ISO 2548 Centrifugal pumps, axial and semiaxial class C

EN 60034-1 Rotating Electric machines

EN 60204-1 Electric equipment of machines

**Enclose:**

1. Technical sheet
2. Declaration of conformity
3. Manufacturing plan

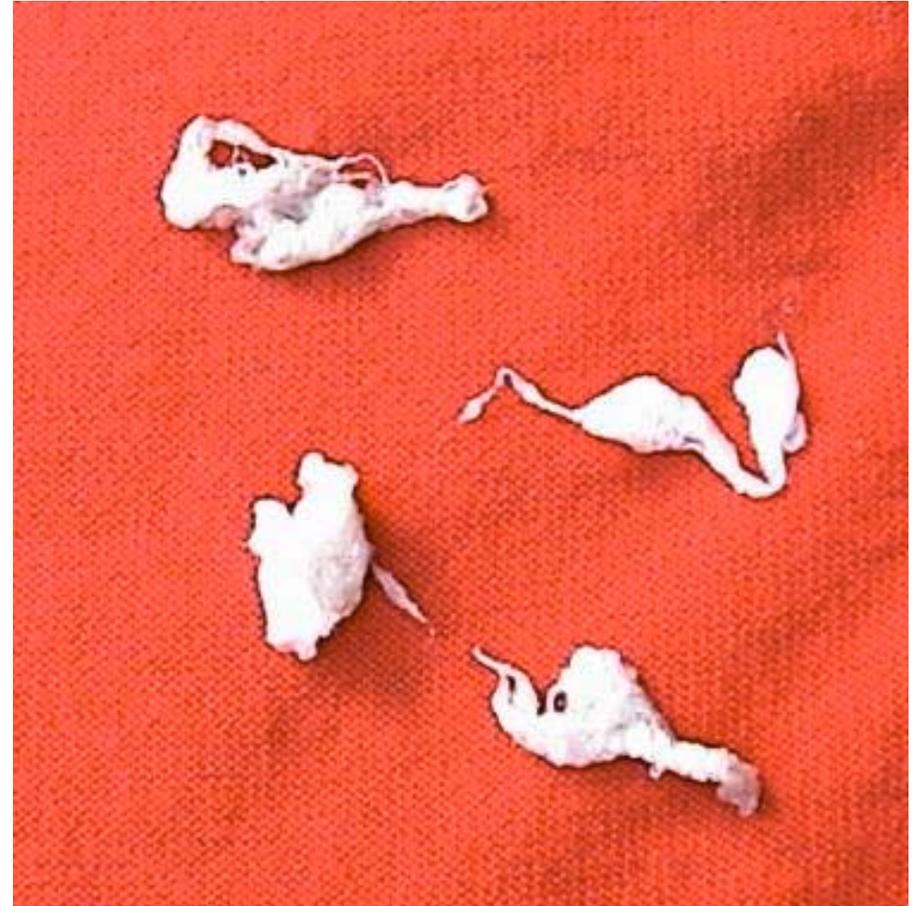
**Technical dept.      Quality Dept.**

\*\*\*\*\*

**COTTON**



**cm.45x65**

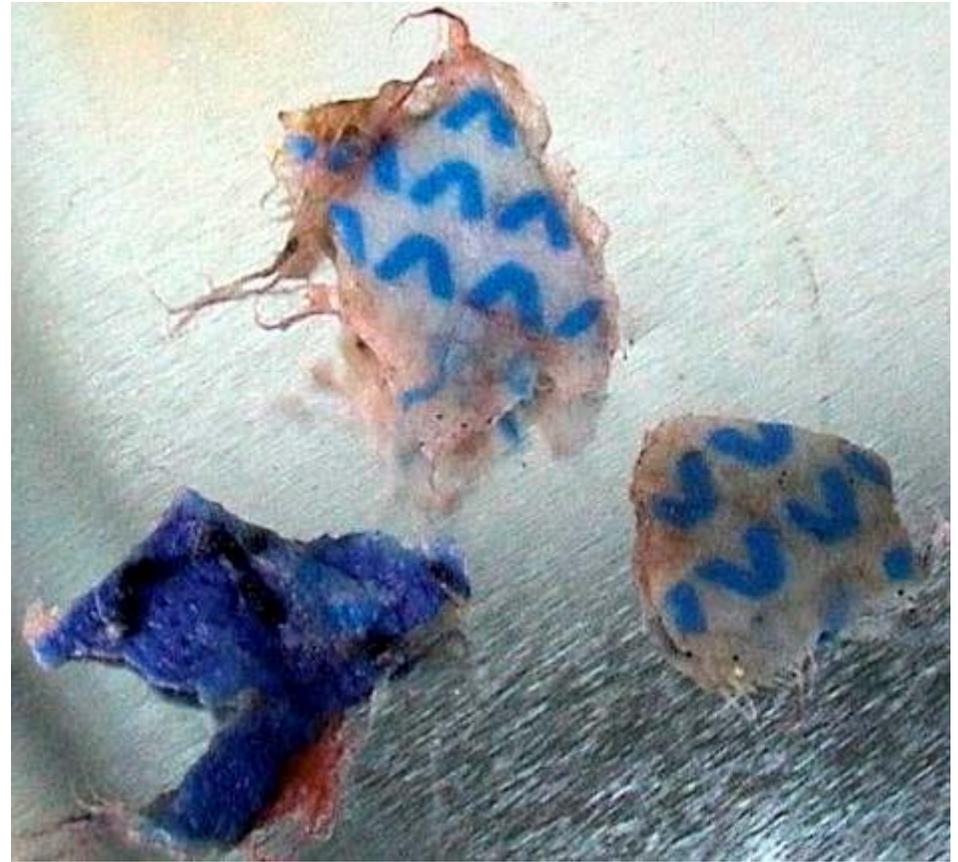


**cm. 1/2**

**MOCHO VILEDA (cotton,viscose,polyester,polyamide)**



cm.15x25



cm.2

**CONDOMS** (latex)



**cm. 3x15**



**cm.2/3**

**GLOVERS (latex)**



**cm.10x20**



**cm. 2/3**



**Twisted residuals**

**SANITARY TOWEL (cellulose fibre)**



**cm.10x20**



**cm.2/3**



**Twisted residuals**

**TIGHTS** (polyamide 95% - elastomer 5%)



cm 20x80



cm. 2/3



Twisted residuals

**TERRY TOWELING** (cotton+cellulose)



**cm.20x18**



**cm.2/3**

**WOLLEN FABRIC + ACRYLIC**

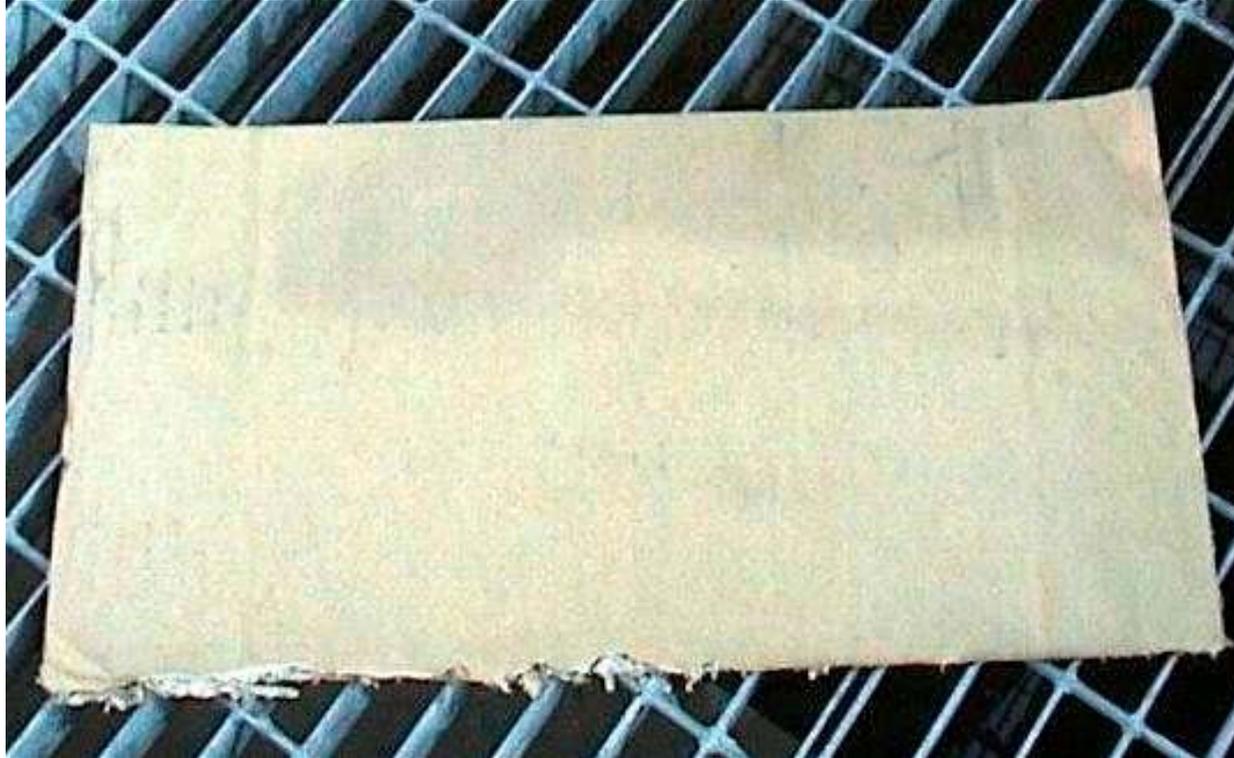


**cm.50X50**



**cm. 2/3**

**CORRUGATED CARTON**



**cm.20x35**



**cm.3**

**COTTON WOOL**



**cm.17x35**

