PROTECTION AGAINST FIRE AND EXPLOSION

There are two ways to achieve the protection level required against fire and explosions: reducing the sources of ignition, and using suitable facilities and equipment.

a) Reduce ignition source

Rooms used for handling or storing paint, should have ventilation system that prevents the formation of explosive atmospheres. To achieve this, follow these recommendations:

- Keep cleaning solvents in the designated areas.
- Close containers used for paints, solvents, thinners and in general all containers that can concentrate dangerous gases during their evaporation, as soon as possible after use.

b) Avoid sources of ignition: specially on those places where there is a risk of explosion or fire, due to the nature of work. It is important to follow this recommendations:

- Separate and isolate the rooms with a risk of fire from other working places.
- Avoid mixing putties wastes with other chemical wastes, as the high temperatures achieved while drying in putties might lead to ignition in contact with other chemical products.
- Avoid storing empty paint and metallic cans that might lead to the creation of sparks by hitting against each other.
- Observe and comply with the regulations concerning safety low voltage installations.

Close cleaning equipment for spray guns when not in use.

Store used cleaning cloths contaminated with wastes in fireproof containers provided with a lid. Remove daily from the paintshop.

The quantity of prepared flammable products stored in the paintshop should not exceed what is necessary for the shift or work period.
PROTECTION AGAINST FIRE AND EXPLOSION

c) Ensure availability of fire extinguishing equipment:

Place adequate fire extinguisher close to the Spray booth and in an accessible place (fire class A and B).

All painting area must have 25mm fireplugs in place and scale complying with the Industrial Facilities Fighting Regulation.

Use foam resistant to alcohol, carbon dioxide, chemical powder or water sprays as fire extinguisher. Never use direct water stream.

Keep fire exposed cans cool with water spraying.

The fire will produce dense black smoke and the products of combustion may be dangerous if inhaled.
PROTECTION AGAINST FIRE AND EXPLOSION

### CLASS OF FIRE

<table>
<thead>
<tr>
<th>EXTINGUISHING AGENT</th>
<th>A SOLID MATERIALS</th>
<th>B FLAMABLE LIQUIDS</th>
<th>C FLAMABLE GASES</th>
<th>D CHEMICALLY ACTIVE METALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stored water</td>
<td>●●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Water spray</td>
<td>●●●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Foam</td>
<td>●●</td>
<td>●●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Polyvalent powder</td>
<td>●●</td>
<td>●●</td>
<td>●●</td>
<td>●</td>
</tr>
<tr>
<td>Dry powder</td>
<td>●</td>
<td>●●●</td>
<td>●●</td>
<td>●</td>
</tr>
<tr>
<td>Carbon dioxide(CO2)</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

- ●●● Excellent
- ●● Good
- ● Acceptable
- ● Not suitable

It is dangerous to use water or foam on fires in the vicinity of electrical equipment or in fires involving class D chemically active metals.

### HOW TO USE A FIRE EXTINGUISHER

1. **PULL OUT THE SAFETY PIN:** Support the top of the cylinder and hold on to the hose with the left hand. Activate the extinguisher by squeezing the levers fully with the right hand.

2. **AIM:** the nozzle at the base of the fire.

3. **MAINTAIN:** the flow of the extinguisher by continuing to squeeze the levers fully.

4. **DISTRIBUTE:** the contents of the extinguisher by waving the nozzle from side to side at the base of the fire until the extinguisher is empty.

### PERSONAL SAFETY PRECAUTIONS:

- NEVER get too close to the fire.
- NEVER let the fire come between you and the exit route to the outside.
- NEVER enter an unfamiliar area to put out a fire, especially in a chemical laboratory.
- Notify the competent person or organisation, if necessary.