

## PROTECTIVE FILM NOVACEL 4224RE

### I - DEFINITION

Self-Adhesive Print Film for Temporary Surface Protection, more particularly used for the laser cutting of stainless steel sheets.

### II - CHARACTERISTICS

- Film Type : Low density Polyethylene
- Colour : Black and White (external side : white)
- Type of Adhesive : Rubber and resins
- Average thickness (AFERA 4006) : 100  $\mu$ m
- Breaking strength (AFERA 4004) - Machine direction : > 1,5 daN/cm  
- Transverse direction : > 1.2 daN/cm
- Elongation at break (AFERA 4005) - Machine direction : > 200 %  
- Transverse direction : > 500 %
- Adhesion to Stainless Steel (AFERA 4001) : 140 cN/cm
- Unwind force (AFERA 4008) : < 250 cN/cm
- Peel Adhesion after 3 months lamination and at speeds of 300 mm/min. : 60 to 200 cN/cm, depending on the type of surface

**N.B.** : AFERA : Association of European Self-Adhesive Tape Manufacturers.

### **III - PRINCIPAL USES**

NOVACEL Product Reference 4224RE is used for the protection of surfaces against dirt, scratches and tool marks during :

- Handling
- Transport and Storage
- Forming
- Assembly...

It is especially adapted for the protection of cold rolled stainless steel.

NOVACEL 4224RE has a specific print for identifying the laser cutting of stainless steel. The lines and the arrows of this print can identify the direction of the lamination or brushing of the metal.

**NOTE : It is not advisable to use 4224RE on copper, brass and alloys containing copper.**

### **IV - PRESENTATION**

NOVACEL 4224RE is generally supplied in rolls of 500 ml in length and up to 2,600 mm in width.

- Packing : rolls of 500 ml are delivered on pallet : 10 rolls per pallet.
- Exterior diameter of 500 m rolls : approx. 280 mm
- Interior diameter of core : 76 mm

NOVACEL 4224RE can also supplied in rolls of 1,250 ml in length and up to 2,600 mm in width.

- Packing : rolls of 1,250 ml are delivered on pallet : 3 rolls per pallet.
- Exterior diameter of 500 m rolls : approx. 410 mm
- Interior diameter of core : 76 mm

### **V - LAMINATION**

NOVACEL 4224RE must be applied to a clean and dry surface with the aid of a laminating machine. The film must be applied without bubbles and without excessive tension (elongation of the film after lamination less than 1 %).

### **VI - STORAGE AND APPLICATION**

- The NOVACEL 4224RE film must be stored in its original packaging, in clean, dry conditions.
- The film should be applied within a 6 month period from the delivery date from NOVACEL.
- The film should be removed within 1 year from the delivery date of lamination within 6 months if the product has been exposed to outdoor ageing.
- Care should be taken when laser cutting of stainless steel sheets protected with the NOVACEL 4224RE film :

To ensure a good laser cutting, NOVACEL asks his customers to make the best adjustment regularly and :

- check that the cutting speed and the cutting gas pressure are appropriate
- check the state of the cutting nozzle and change it regularly as soon as necessary.

- Elimination of protective film waste.

Recycling is possible. Dumping or incineration possible under conditions to respect the local or national regulation in force.

<b>VII - GENERAL GUARANTEE CONDITIONS</b>
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NOVACEL self-adhesive, protective films are designed for temporary surface protection of surfaces against dirt, scratches and tool marks ; they are not designed for protection against corrosion, humidity or chemicals. Their applications are very diverse and the conditions of use can vary from one enterprise to another, and for this reason NOVACEL always asks the Client to test the product and carry out a trial.

The evaluation trial must take into account the type of material on which the product is used, the surface finish, the temperature and processing constraints, and the time and conditions for exterior use.

The principal utilisations mentioned in part III are only indicative and will not engage NOVACEL's responsibility if utilisation test is not done under normal use forecast by the customer.

NOVACEL cannot be responsible for the misuse of the product, nor for the consequences of their usage for non-recommended applications.

The product guarantee is generally limited to the replacement of the defective product and does not cover consequential claims.

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