Pits and fissures sealing is usually done on the first two permanent molars that grow respectively in the 6th and 12th year in children. The sealant is applied in the pits. By hardening, it mechanically protects the tooth and strengthens it thanks to the fluorides it contains.

Highly recommended in children to protect the still young enamel, it can also be done in adults on healthy teeth when the caries risk is high. Be careful, if it avoids 80% of carious lesions on the faces of the teeth, it does not in any way dispense with good oral hygiene.

Source: «Les scellements de sillons (sealants), pourquoi et comment?», UFSBD

**Comparative study of the sealing strength of 4 different materials** used for sealing pits and fissures.
IMEB Laboratory, Faculty of Dentistry Marseille, Dr. Elena Savi, Prof. Corinne Tardieu, Prof. Jacques Déjou

**EXCELLENT BONDING STRENGTH** on enamel (20 - 25 MPa)

<table>
<thead>
<tr>
<th>Score</th>
<th>Clin Pro</th>
<th>Helioseal</th>
<th>Embrace</th>
<th>Prevent Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>71</td>
<td>73</td>
<td>74</td>
<td>76</td>
</tr>
<tr>
<td>2,5</td>
<td>2</td>
<td>1,5</td>
<td>1</td>
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<tr>
<td>2</td>
<td>0,75</td>
<td>0,75</td>
<td>0,25</td>
<td>0,25</td>
</tr>
<tr>
<td>1</td>
<td>0,25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LIGHT-CURING**

Up to 4.5 mm

**SELF-ETCHING**

No need to prepare the tooth

Score 3: penetration of colourant into fissure itself
Score 2: penetration reaching the internal area of sealed fissure
Score 1: penetration limited to the exterior area of sealed fissure
Score 0: dye

**CONCLUSION OF STUDY:**
Prevent Seal performances (i.e. penetration of sealant into pits and fissures and quality of peripheral seal) are equivalent to those of conventional sealants that require prior etching.
How to assess the risk of dental cavities?

Classify patients with at least one of the following individual risk factors as «high risk for dental cavities»:
- No daily brushing with fluoride toothpaste
- Regular sugary ingestions outside of meals or snack (sweet food, sugary drinks, sweets)
- Long-term intake of sugary or hyposialia medications
- Anfractuous pits (deep and narrow on clinical examination) at the molars
- Presence of plaque visible to the naked eye without revelation
- Presence of cavities (damage to dentin) and / or initial reversible lesions (damage to enamel)

Classify patients with none of these individual risk factors as «low risk for cavities».

In case of high risk for dental cavities

1. Air-dry
2. Clean using water spray brush
3. Apply Prevent Seal
4. Let stand for 15 seconds
5. Light-cure for 20 seconds
6. Occlusion control

Instead of using small brushes, air abrasion can be used to thoroughly clean the tooth before applying the sealant. All alumina particles should be removed as these reduce the adhesion of Prevent Seal. The prepared surface must be thoroughly dried before Prevent Seal is applied, as the product is hydrophobic.

Prevent Seal is a composite resin and is therefore compatible with all other available composites. Contains the photoinitiator camphorquinone. Use a curing light emitting between 400 and 500 nm.

References

PREVENT SEAL
1.2 ml syringe + 10 extra-fine needle tips 25G
+ 3 pointed brushes .............................................PVSEAL-1.2
20 extra-fine needle tips 25G.......................................PVSE-25G
15 autoclavable pointed brushes ..............................PVBRO-15

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