

## Chapter 3

### Procedure for Selecting the Right Painter - Seven Steps To Be Taken

When hiring a painting contractor, having knowledge of house painting is the key to a trouble-free construction. This chapter provides step-by-step instructions on what to know and do before having your house painted.

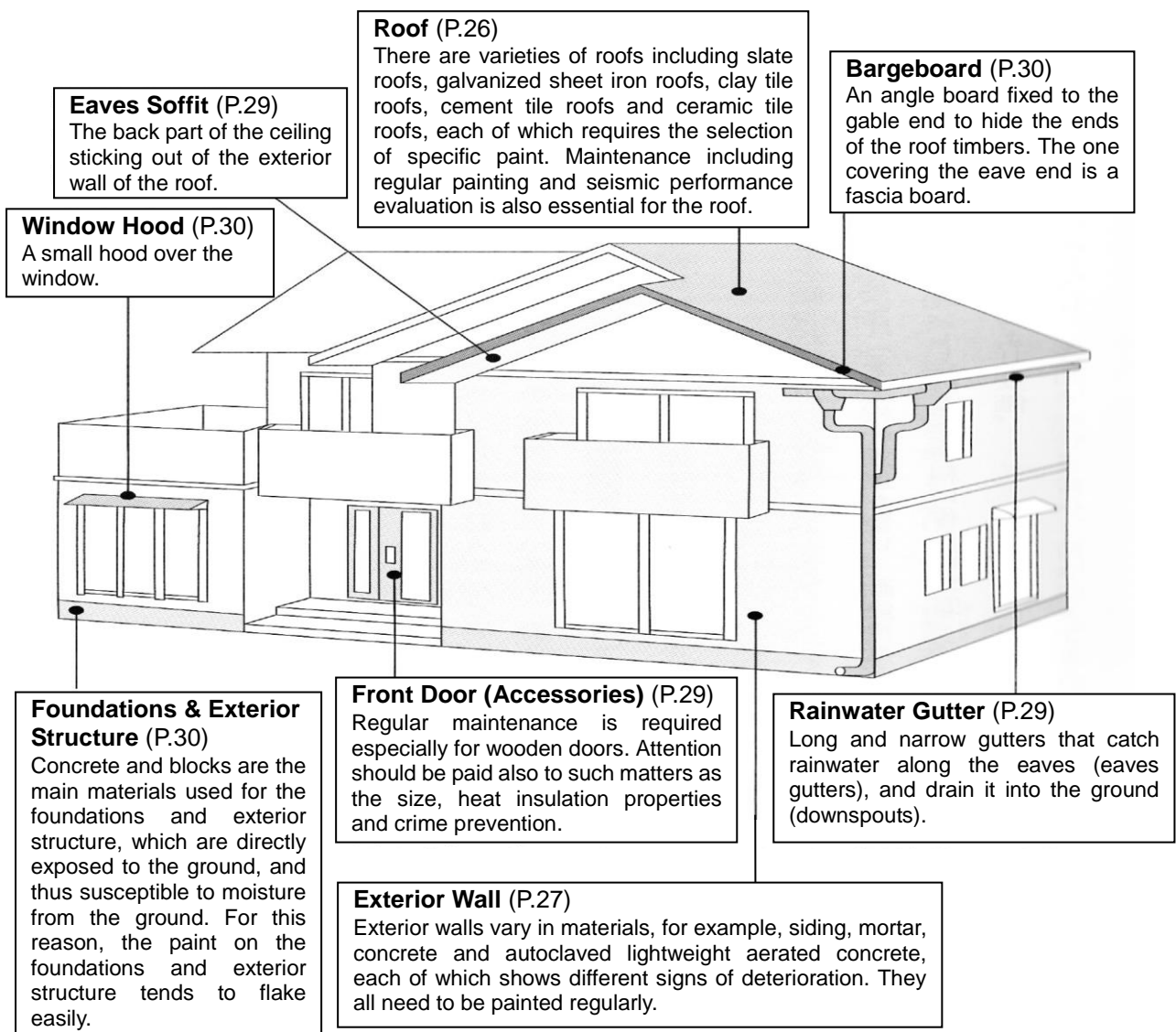
#### **Step 1 • Know the areas that require painting**

You may want to believe that you can get your construction project completed properly just by hiring a specialized contractor, but unfortunately, there is no assurance that all contractors perform their jobs with sincerity. Selecting a reliable contractor, whom you can outsource work without worry, requires you also have a certain level of knowledge.

Once you would like to outsource painting, the first step is to verify the areas that require painting, particularly, the materials used in the portions that require painting and the differences among them.

This is because roofs and exterior walls vary in materials and damage conditions, which require different methods, paints and amounts of paint. It is also important to check whether the estimate from the contractor specifies these kinds of detailed conditions before signing a contract.

The next pages list basic terms concerning roofs and exterior walls together with their meanings and other necessary information to increase your knowledge about painting.



## Basic Painting Terms/Knowledge to Remember/Know

### For [Roof]

■ **Slate Roof Tile:** Slate is a kind of rock. Artificial slate roof tiles, which are also referred to as Colonial, are thin stone tiles, and contain cement and asbestos as main ingredients. They are lighter than other roofing tiles in weight, stronger than sheet metals, relatively cheap in price, and one of the most common roof coverings.

<**Degradation Characteristic**> Entry of rainwater into roof tiles due to the flaking of paint causes such problems as the growth of moss, cracking, and the warpage of underroofing.

■ **Galvanized Sheet Iron Roofing:** Roofing with coated metal sheets such as iron sheets and Galvalume steel sheet.

<**Degradation Characteristic**> Rust forms. The ideal is to perform painting at intervals of about five years before the formation of rust.

■ **Clay Roof Tile:** Tiles made of fired clay. Generally used in the roofs of Japanese houses.

<**Degradation Characteristic**> Roofs with clay tiles weight more than those with other tiles, and need to be checked for their seismic performance and other abilities.

■ **Cement Roof Tile:** Tiles made of cement and sand as main ingredients. Resistant to temperature changes, and cheaper than clay-type roof tiles.

<**Degradation Characteristic**> If the color of cement roof tiles is faded out, or they have wet surfaces and are moss-grown, that is indicating that the roof require early painting.

■ **Ceramic Roof Tile:** Clay roof tiles with color glazes applied before being fired. Waterproof and durable.

<**Degradation Characteristic**> Once the glaze gets cracked, the crack will be larger.

### For [Exterior Wall]

■ **Siding:** Board-shaped building materials, which are largely divided into four groups; ceramic-based, metal-based, wood-based, and resin-based. The most-commonly used siding is ceramic-based one, which is mainly made from a mixture of cement and fibrous materials.

<**Degradation Characteristic**> Siding materials, especially ceramic-based siding materials have high water absorption, which tends to cause expansion. They also tend to suffer from deformation, cracking, color fading, dirt, and moss. Phenomena such as chalking\*<sup>1</sup>, hair cracks\*<sup>2</sup> over a wide area, and a cracked seal\*<sup>3</sup> in a joint are also signs of deterioration of siding.

■ **Mortar:** A kneaded mixture of cement, water and sand.

<**Degradation Characteristic**> Degradation of coating films due to poor waterproof performance can cause cracking. Mortar can also suffer from color fading, dirt, and moss growth. Phenomena such as chalking and hair cracks over a wide area are also signs of degradation.

■ **Concrete:** A kneaded mixture of a proper ratio of cement, aggregate such as sand or ballast, water, and as necessary, admixture. Concrete also refers to a hardened form of the above-mentioned mixture. It varies in fire resistance, durability, and water resistance, and has high compressive strength.

<**Degradation Characteristic**> Concrete with a non-coated surface (as-cast concrete) absorbs water from

the surface, and gets degraded, or becomes less strong due to neutralization of the surface. If concrete has a coated surface, coating films get degraded, and it will have the same phenomena as the as-cast concrete. Also, water entering from a crack can cause rusting of internal reinforcing steel.

■ **Autoclaved Lightweight Aerated Concrete (ALC):** Lightweight compared to concrete, which is generally heavy in weight, and high in heat insulation.

<**Degradation Characteristic**> Sealing materials in joints can crack, or become thinner. Unprotected surfaces provide poor water resistance. ALC can also suffer from color fading, dirt, moss growth, and cracked coating films. Chalking and hair cracks over a wide area are also signs of degradation.

\*1 Chalking: refers to a phenomenon where long exposure to ultraviolet rays, etc. forms a white powdery layer (pigment content) on the coated surface. If you touch a chalking surface, powder will adhere to your hand. This is indicating that a coating film has become thinner, and allows easy water entry from the surface.

\*2 Hair Cracks: refer to cracks appearing on the surface of an exterior or interior wall, etc. of a building. They are caused mainly by drying shrinkage or expansion, and thin (generally, no more than 0.3 mm) and not so deep, and have no particular effect on the structure.

\*3 Seals: refer to elastic, rubber-like materials mainly used for filling joints on exterior walls. Degradation hardens and shrinks them.