

6.2. Corrosion Prevention

6.2.1. Determining a Material

Any LM system requires a material that meets the service conditions. For use in environments where corrosion resistance is required, some LM system models can use martensitic stainless steel.

(Martensitic stainless steel can be used for LM Guide models SSR, SHW, SRS, HSR, SR, HR, HRW, RSR, RSR-Z, RSH and RSH-Z.)

The HSR series includes HSR-M2, a highly corrosion resistant LM Guide using austenitic stainless steel, which has high anti-corrosive effect. For details, see page a-328 of the "THK General Catalog - Product Specifications," provided separately.

6.2.2. Surface Treatment

The surfaces of the rails and shafts of LM systems can be treated for anti-corrosive or esthetic purposes.

THK offers THK-AP treatment, which is the optimum surface treatment for LM systems. The THK-AP treatment consists of the following 3 types.

AP-CF

A compound surface treatment that combines black chrome film coating and special fluorine resin coating and is suitable for applications requiring high corrosion resistance.

AP-C

A type of industrial-use black chrome film coating designed to increase corrosion resistance. It achieves lower cost and higher corrosion resistance than martensitic stainless steel.

AP-HC

Equivalent to industrial-use hard chrome plating, AP-HC achieves almost the same level of corrosion resistance as martensitic stainless steel.

In addition, it is highly wear resistant since the film hardness is extremely high, 850 HV or higher.

In addition to the above treatments, other surface treatments are sometimes performed on areas other than the raceways, such as alkali coloring treatment (black anodization) and color alumite treatment. However, some of them are not suitable for LM systems. For details, contact THK.

If using an LM system whose raceways are surface-treated, set a higher safety factor.

Model number coding

SR15 V 2 F + 640L F

1 2 3 4 5 6

1 Model number **2** Type of LM block **3** No. of LM blocks used on the same rail **4** With surface treatment on the LM block* **5** LM rail length (in mm) **6** With surface treatment on the LM rail*

* Specify the type of the surface treatment when placing an order.