

The metal electrodes of Japan Carlit, EXCELOAD, are developed to be quality, reliable products by making use of our high-level fundamental technology, excellent production techniques, and records of operation with abundant experience.

Note 1) The brand name of the electrodes is EXCELOAD®. Every product is developed in-house.

Note 2) The values in [] in the table (film thickness and current density) indicate the operating ranges.

Note 3) Application of reverse electrolysis is available according to the conditions.

Name	Coating material	Region of electrolysis	Revers electrolysis	Major applications	Standard film thickness	Standard current density	Features
EXCELOAD BA	Platinum	Generation of chlorine Generation of oxygen	Available	Electrolysis of seawater, production of ionized water, plating, production of perchlorates	Approx. 2µm [1 to 7 µm]	Approx. 15 A/dm ² (Electrolysis of seawater, plating) [up to 30 A/dm ²]	(i) Improvement in adhesion and durability compared to conventional platinum plating
EXCELOAD EA	Platinum	Generation of chlorine Generation of oxygen	Available	Electrolysis of seawater, production of ionized water, plating, Production of persulfates			
EXCELOAD R-1000	Platinum	Generation of chlorine Generation of oxygen	Available	Electrolysis of water	Approx. 0.2µm [0.1 to 1 µm]	Approx. 1 A/dm ² (Electrolysis of water) [up to 2 A/dm ²]	(i) Product of simple baking of platinum (ii) Larger chlorine activity than platinum plating
EXCELOAD R-2000	Platinum	Generation of chlorine Generation of oxygen	Available	Electrolysis of water (alkaline ionized water), electrolysis of dilute salt water, plating,			(i) Product of simple baking of platinum (ii) Equivalent chlorine activity to platinum plating
EXCELOAD RN-1000	Composite of platinum system	Generation of chlorine	Available	Electrolysis of water (alkaline ionized water)			(i) Product of composite bake of platinum system, enhanced in reverse electrolysis (ii) Inhibition of chlorine activity
EXCELOAD RN-2000	Composite of platinum system	Generation of chlorine	Available	Electrolysis of water (generation of hypochlorous acid), electrolysis of dilute salt water			(i) Product of composite bake of platinum system, enhanced in reverse electrolysis (ii) Largest chlorine activity in the RN series
EXCELOAD RN-3000	Composite of platinum system	Generation of chlorine	Available	Electrolysis of water (alkaline ionized water, generation of hypochlorous acid)			(i) Product of composite bake of platinum system, enhanced in reverse electrolysis (ii) Best for alkaline ionized water
EXCELOAD B	Iridium dioxide	Generation of oxygen	Not available	Plating, electrowinning, metal recovery	Approx. 20g/m ² [10 to 40g/m ²]	Approx. 15 A/dm ² [up to 50 A/dm ²]	(i) Product of simple baking of iridium dioxide
EXCELOAD F	Composite of iridium dioxide system	Generation of oxygen	Not available	Plating, electrowinning, metal recovery	Approx. 20g/m ² [10 to 40g/m ²]	Approx. 15 A/dm ² [up to 50 A/dm ²]	(i) Product of composite baking of iridium dioxide system with improved durability (ii) Low oxygen overvoltage
EXCELOAD C	Composite of ruthenium system	Generation of chlorine	Not available	Production of high-concentration sodium hypochlorite, production of chlorates	Approx. 15g/m ² [5 to 30g/m ²]	Approx. 15 A/dm ² [5 to 30 A/dm ²]	(i) Product of composite baking of ruthenium system (ii) High efficiency in chlorine generation, low tank voltage
EXCELOAD S	Composite of platinum system	Generation of chlorine	Not available	Electrolysis of seawater, wastewater treatment	Approx. 15g/m ² [5 to 30g/m ²]	Approx. 15 A/dm ² [5 to 30 A/dm ²]	(i) Product of composite baking of platinum system (ii) Largest durability in the region of chlorine generation (iii) High efficiency in chlorine generation, allowing the use for low-temperature seawater
EXCELOAD LD	Lead dioxide	Generation of oxygen	Not available	Plating, wastewater treatment, ozone generation, electroorganic syntheses	Approx. 18,000g/m ² [Approx. 1mm]	Approx. 15 A/dm ² [5 to 30 A/dm ²]	(i) Product of electrodeposition of lead dioxide (ii) Capability of plate fabrication by mesh support (unique in Japan) (iii) Improvement in durability by elimination of stress cracking (iv) Smaller sludge generation compared to lead