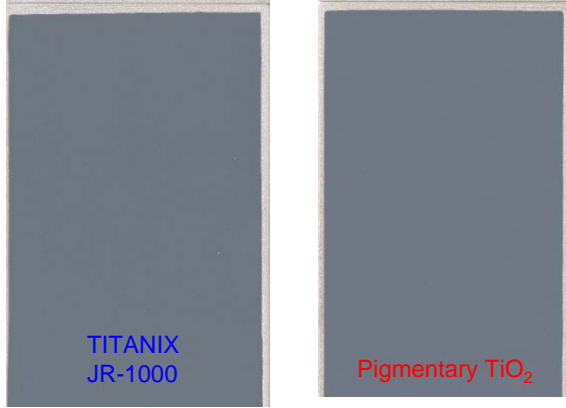


Heat blocking effect of TITANIX JR-1000 in dark gray colored film

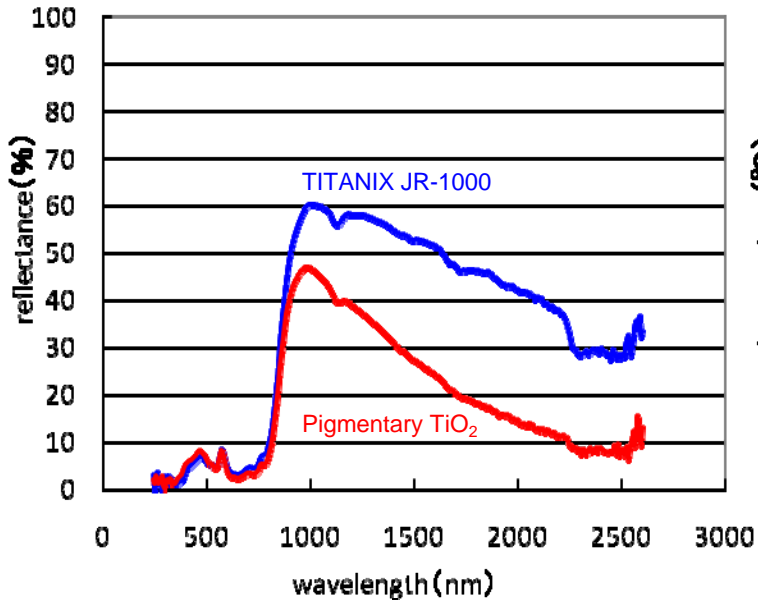
● Dark gray colored film sample



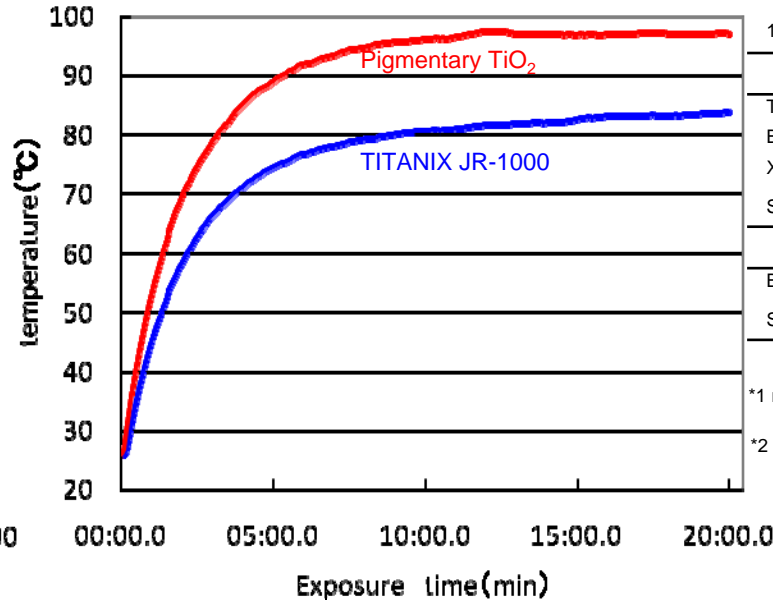
● Color pigment content, film color, & solar reflectance

	Pigment content (%)			Hunter color values			Munsell color values			Solar reflectance		
	TiO ₂	red	green	L	a	b	H	V	C	300 - 780 nm	780 - 2500 nm	300 - 2500 nm
TITANIX JR-1000	65.9	19.1	15.0	19.7	-2.2	-5.0	7.7B	2.3	1.9	5.5	46.4	24.9
Pigmentary TiO ₂	50.6	27.7	21.7	21.2	-2.3	-5.3	7.8B	2.5	1.9	5.3	22.0	17.1

● Reflectance curves



● Heat blocking test



● Dark gray paint formulation & coating conditions

1) Paint formulation (Pigment concentration, 100 PHR)

Dispersion	Content (g)
Titanium dioxide & color pigment *1	50
Beckosol J-524 (solid content, 60%) *2	12
Xylene/Butyl alcohol = 8/2	12
Silicone for leveling	1
Letdown	Content (g)
Beckosol J-524 (solid content, 60%) *2	46.3
Super Beckamine J-820 (solid content, 60%) *2	25

*1 red pigment : AZO red 8040
 green pigment : Phthalocyanine green 2G-50-D
 (Dainichiseika color & chemicals Mfg.)

*2 from DIC

2) Coating conditions

Coating method	Bar coater
Substrate	Tin free steel (20 × 20 cm)
Film thickness	40 μm