



# Shree Karan Metal Technologies

ISO-9001 -2015

Title: Process Validation

Doc. No. : SKMT/F/118

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**Purpose:** Validation of anodizing black & personnel qualification of operatives

**Process:** Anodizing Black

**Name of operatives:** Mr. Ravi kumar, Mr. Shashidhar, Mr. Deepak

**Date :** 01.08.2024

**Part Name/Number:** Test part

Operation	Characteristic	Specification	Observations	Remarks
1. Degreasing bath (Gin bond - NS 35)	Conc (Make Up)	40 - 65 gms/ltr	45.45 gms/ltr.	
	Temp.	35 +/- 5 Degree	36°C	
	Time	1 - 3 Min	2 min	
2. Alkaline Etching (Caustic Soda)	Conc (Make Up)	40 - 50 gms/ltr	46.2 gms/ltr.	
	Temp.	30 +/- Degree	28°C	
	Time	1 - 3 Min	2 min	
3. Desmutting (Nitric Acid)	Conc (Make Up)	10 - 15 %	13.86 % v/v	
	Temp.	Room Temperature	Found ok	
	Time	1 - 5 Min	4 min	
4. Anodizing (Sulphuric Acid)	Conc (Make Up)	15 +/- 2 w/v	15.4 % w/v	
	Al. Conc	Less than 10 gms/ltr	4.17 gms/ltr.	
	Voltage	15 to 20 V	18 V	
	Temp.	20 +/- 2 degree	21°C	
	Time	40 to 60 Min	60 min	
5. Dyeing (Arodal Deep Black)	PH	4.0 to 5.0	4.8	
	Temperature	40 to 50 Degree	47°C	
	Time	40 to 60 Min	60 min	