Table 7. Resistance to Corrosion of Materials Used for Hoods and Ducts[40]

Classification	Approximate Service Life
E—Excellent	Over 5 years
S—Satisfactory	2 to 5 years
F—Fair	½ to 2 years
P—Poor	6 months
Combinations (EP)	Indefinite rating

	See Footnote	Galvanized Iron	Black Iron	Stainless Steel	Monel	Lead Lining	Aluminum	Hard Rubber	Natural Rubber	Pressed Wood	Neoprene	Terne Plate	Buna S	Koroseal	Asphalt: Paint on Iron Galv or Black	Asphalt: Hot, 180–200 F on Galv Iron	Asphalt: 3-Course Felted on Metal or Wood	Asphalt: Painted Pressed Wood	Phenolic Resin: Paint	Phenolic Resin: Bonded Plywood or Redwood	Phenolic Resin: Baked, or Solid Cast Resin	Asbestos Cement Board or Tube	Vinylite Resin Type Paint	Vitrified Clay Pipe with Mastic Joints
Acid, Chromic (Plating and Anodizing)		EP	EP	S		ES				SP	S	S			P				SF	P	EF			E
Acid, Hydrochloric		EP	P	E	S	F		E	E4		E	F	E	E	EF	S		S		F	EP	F	E4	E
Acid, Hydrofluoric		P			S				S						S						E			F
Acid, Nitric		P		E		E					E				FP	F					F		S	E
Acid, Oxalic (Anodizing)					E	S	E								S									E
Acid, Sulfuric		P	P	S5		E6		E	E7	P	E	S			EP	S	F		F	ES	E	E5	EP	E
Acid Dipping and Pickling (Horiz Ducts)															P	F	E							E
Alkaline Cleaner (Caustic 140–180 F)		EP	EP	E						S	E				ES			S			S	E		E
Alkaline Cleaning Solutions	2	E	E	E							E				E									E
Alkaline Plating (Cu, Cd, Ag)		EP	EP							E	S				ES			S			S	S	S	E
Plating and Anodizing (Horizontal Ducts)															P	S	E							E
Plating, Bright Nickel		SP	SP								S				E			S					S	E
Plating and Dipping (Vertical Ducts)		P													F					E				E
Tanning, Dressing, Dyeing, Bleaching Sol		S8							S9															E
Water, Boiling and Steam		EP	SP	E	E						E				ES	E					E	S		E
Decarbonizing Agents	3	E																						E
Degreasing Compounds; Organic & Mineral Sol		E	E																					E
Enamels and Lacquers (Coating & Dipping)		E	S																					
Fabric Impregnation		S																						
Salt, Supersaturated Solution 300–400 F		S	S																					E
Wire Insulation		S																						

Notes: 1. Ratings are based upon collated field service reports. Indefinite ratings are given where reports are inconsistent due to varying operating conditions (such as dilution, exposure to weather, etc.). Blank spaces denote insufficient information, not poor service. 2. Mild soaps, detergents, water soluble oils, 140–180 F. 3. Creosote oil, kerosene, ethylene dichloride. 4. To 20 percent: E; 50–70 percent, 150 F: S. 5. To 50 percent, plating: E; 20 percent anodizing, agitated 80 F: S. 6. To 50 percent plating: S; over 50 percent pickling, 20 percent anodizing: E. 7. 5–22 percent, 135–215 F pickling: S; plating, pickling, anodizing: E. 8. Except acid. 9. Acid.

Table 8. Resistance to Corrosion of Materials Used for Exhaust Fans[40]

Process	Steel	Aluminum	Galvanized Steel	Cast Iron	Brass	Lead	Asphalt Paint	Vinyl Resin Paint	Red Lead Paint	Hot Asphalt	Phenolic Resin Baked Coating	Hard Rubber Lining	Soft Rubber	Neoprene	Everdur	Koroloc	Pressed Wood	AISI 316	Acid Bronze
Acid Dipping, Pickling and Stripping	EP	S		E		E	SP		E		S	E	ES	E	E	F			P
Alkaline Cleaning	EF	S	E	E			EP				S	ES		E	E	F		E	
Anodizing	SF	S					E	E	E		E	E		E					
Coating—Enamel and Lacquer	E	E			E						S			E					
Decarbonizing	ES				E		P					E			E	F			
Degreasing and Metal Cleaning	ES		ES		E														
Hardening and Quenching	ES		ES																
Plating	EP	S		E			ES	S			ES	E	E	E					
Washing and Rinsing	EP	E		E			SP			S		E		E			F		

Classification	Approximate Service Life
E—Excellent	Over 5 years
S—Satisfactory	2 to 5 years
F—Fair	6 months to 2 years
P—Poor	6 months
Combinations	Variable performance

Note: Ratings are based upon collated field service reports. Forward curved fans are *not* recommended for open-tank ventilation service. Cleanout doors and bottom drains are recommended on all fans on open-tank operations. The deposits which build up on fan wheels and casings should be removed by regular cleaning. Repaint where any coating has been broken and removed.