

Tall oil products

Product Name	Product Specifications						Package**	Application
	Fatty Acid (%)	Rosin Acid (%)	Unsaponifiables (%)	Acid Value	Iodine Value	Color Number*		
HARTALL FA-1S	96 min.	1.5 max.	2.5 max.	193 min.	130 min.	6 max. (H)	180kgs D/M	Intermediates (e.g. Dimer acid)
HARTALL FA-1	95 min.	2 max.	3 max.	193 min.	125 min.	7 max. (H)	190kgs D/M 16kgs C/N	Alkyd resins, Surfactants, Lubricating oil
HARTALL FA-1P	—	6 max.	5 max.	185 min.	—	8 max. (H)	190kgs D/M 16kgs C/N	Alkyd resins, Surfactants, Defoamers
HARTALL FA-3S	—	12 max.	—	185 min.	—	9 max. (H)	190kgs D/M	Surfactants, Rubber processing, Plasticizer
HARTALL FA-3	—	12 max.	7 max.	180 min.	—	14 max. (H)	190kgs D/M 16kgs C/N	Agricultural chemicals, Cutting oil, Soap
HARTALL FA-20	91 min.	3 max.	6 max.	181 min.	—	9 max. (G)	180kgs D/M	Alkyd resins
HARTALL FA-47	—	—	—	160 min.	60 ~ 85	6 max. (G)	180kgs D/M 16kgs C/N	Surfactants, Plasticizer

HARTALL SR-20	—	20 ~ 30	—	150 ~ 162	—	10 ~ 17 (H)	190kgs D/M	Additive for asphalt, cement
HARTALL SR-30	—	35 ~ 45	—	155 ~ 165	—	15 max. (H)	190kgs D/M	Alkyd resins, Lubricating oil
HARTALL R-20	—	15 ~ 25	—	170 min.	—	11.5 max. (H)	190kgs D/M	Lubricating oil, Agricultural chemicals
HARTALL R-30	—	20 ~ 30	—	175 min.	—	10 max. (H)	190kgs D/M	Alkyd resins, Lubricating oil

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	Fatty Acid (%)	Rosin Acid (%)	Unsaponifiables (%)	Acid Value	Iodine Value	Color (Hellige)	Color Grade	Softening Point (°C)		
HARTALL R-X	—	—	—	165 min.	—	—	X min.	73 min.	228kgs D/M	Rosin modified resins, Adhesives, Rubber
HARTALL R-WW	—	—	—	163 min.	—	—	WW min.	70 min.	228kgs D/M	Rosin modified resins, Adhesives, Rubber, Paper sizes
HARTALL R-N	—	—	—	160 min.	—	—	N min.	65 min.	228kgs D/M	Rosin modified resins, Rubber, Paper sizes

HARTALL FA-4	—	—	—	140 min.	—	—	—	—	16kgs C/N	Rubber, Collector, Soap
HARTALL R-10	—	—	—	50 min.	—	—	—	—	180kgs D/M	Rubber, Collector, Defoamers
HARTALL TP***	—	—	—	—	—	—	—	—	190kgs D/M	Rubber, Ink, Additives for asphalt

ardner
18¢ can
500 to 1000 cps.