

Permit Reference Number: UP3831ES

Installation: TS Resins, Alyn Works

Reporting of Energy Usage for the year.....2019.....

Operator:

TS Resins Ltd

Form Number:

E1

Energy Usage				
Energy Source	Energy Usage			Units
		Quantity	Primary Energy (MWh)	CO ₂ Produced (tonnes)
Production	tonnes	37041		
Electricity*	MWh	2459	6387	1060
Steam**	tonnes	3748	3589	682
Gas oil	tonnes	4.614	58	15
Heavy fuel oil	tonnes	0	0	0
TOTAL		-	10034	1757

*Conversion factor for delivered electricity to primary energy = 0.385

** Steam is supplied from natural gas fired boilers.

Trends In Energy Usage			
Year	Parameter		
	Primary Energy	CO ₂ produced	CO ₂ per unit output
2019	10034	1757	0.047
2018	8838	1559	0.068
2017	8595	1453	0.060
2016	7739	1350	0.060
2015	7912	1312	0.061
2014	8168	1325	0.035
2013	8968.0	1573.3	0.041
2012	8484.1	1487.1	0.037
2011	7973.4	1381.2	0.023
2010	9238.4	1617.1	0.025
2009	7447.9	1318.2	0.022

Operator comments: Boiler efficiency = 80%
Energy use is dependent on product mix.

Signed 

(authorised to sign as representative of the Operator)

Date:08/01/2020.....