

Datasets	Algorithms	Scores	Black						Paradiso						Rawsilik					
			Material Removal Rate			Artificial data			Material Removal Rate			Artificial data			Material Removal Rate			Artificial data		
			rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2
Results on Test dataset-1																				
Extra Trees	Train Score	23.771	20.146	0.453	25.967	21.921	0.364	26.316	23.134	0.381	27.957	24.351	0.309	23.497	20.603	0.433	26.236	23.246	0.321	
	Test Score	23.222	19.713	0.384	24.538	20.837	0.312	22.876	18.598	0.332	24.052	19.190	0.262	21.981	18.996	0.398	23.374	19.603	0.319	
Linear Regression	Train Score	13.394	10.247	0.826	15.031	11.680	0.787	13.445	10.110	0.839	15.368	12.415	0.791	11.325	8.563	0.868	13.442	10.522	0.822	
	Test Score	13.693	10.352	0.786	14.414	10.897	0.763	11.665	8.200	0.826	12.469	8.834	0.802	14.127	11.412	0.751	14.208	11.432	0.748	
Decision Trees	Train Score	6.975	5.502	0.953	8.508	6.503	0.932	10.970	8.533	0.893	12.116	8.901	0.870	9.161	7.421	0.914	12.026	9.333	0.857	
	Test Score	20.799	15.466	0.506	20.122	15.387	0.537	19.175	15.341	0.531	19.821	15.698	0.499	19.403	16.430	0.531	20.129	16.434	0.495	
Random Forest Regressor	Train Score	3.717	2.715	0.987	5.009	3.266	0.976	4.290	3.015	0.984	5.455	3.729	0.974	4.361	3.271	0.980	5.029	3.526	0.975	
	Test Score	16.515	11.159	0.688	16.940	11.421	0.672	15.978	10.734	0.674	14.886	11.234	0.717	13.388	11.434	0.777	13.522	11.093	0.772	
KNN	Train Score	9.475	6.839	0.913	10.948	7.751	0.887	8.606	6.448	0.934	11.384	8.286	0.885	8.702	6.951	0.922	9.417	7.363	0.912	
	Test Score	10.905	8.279	0.864	12.996	10.202	0.807	10.586	8.750	0.857	10.158	7.857	0.868	12.561	9.233	0.803	13.649	9.347	0.768	
Gradient Boost	Train Score	2.433	1.754	0.994	3.195	2.338	0.990	3.188	2.235	0.991	3.604	2.647	0.989	3.163	2.271	0.990	3.152	2.137	0.990	
	Test Score	15.635	10.139	0.721	14.852	10.463	0.748	13.690	10.235	0.761	14.147	10.808	0.745	9.985	8.407	0.876	10.937	9.155	0.851	
XGBoost	Train Score	0.021	0.015	1.000	0.178	0.100	0.041	0.024	1.000	0.104	0.059	1.000	0.050	0.028	1.000	0.220	0.137	1.000		
	Test Score	14.373	9.013	0.764	15.091	9.887	0.740	14.553	10.605	0.730	15.330	10.326	0.700	9.050	6.814	0.898	9.103	7.609	0.897	
Neural Networks	Train Score	10.494	7.502	0.893	13.112	9.763	0.838	11.166	8.431	0.889	14.209	11.194	0.822	9.161	7.266	0.914	11.959	9.512	0.859	
	Test Score	12.310	9.612	0.827	13.855	10.929	0.781	10.426	8.231	0.861	12.783	10.268	0.791	11.767	9.751	0.827	13.395	11.332	0.776	
Lasso Regression	Train Score	13.395	10.243	0.826	15.032	11.673	0.787	13.446	10.108	0.839	15.368	12.139	0.791	11.325	8.568	0.868	13.443	10.523	0.822	
	Test Score	13.706	10.358	0.785	14.432	10.923	0.762	11.689	8.211	0.826	12.500	8.863	0.801	14.137	11.428	0.751	14.219	11.443	0.748	
Ridge Regression	Train Score	13.395	10.239	0.826	15.032	11.675	0.787	13.446	10.106	0.839	15.368	12.138	0.791	11.326	8.567	0.868	13.443	10.521	0.822	
	Test Score	13.731	10.383	0.785	14.441	10.929	0.762	11.695	8.208	0.825	12.493	8.852	0.801	14.155	11.434	0.750	14.228	11.442	0.748	
Support Vector Machines	Train Score	20.927	12.979	0.576	21.109	13.188	0.602	21.109	13.188	0.602	20.934	16.517	0.441	20.238	17.103	0.490				
	Test Score	21.622	17.931	0.466																
Results on Test dataset-2																				
Extra Trees	Train Score	23.234	19.612	0.476	23.833	20.251	0.446	25.600	22.080	0.376	26.187	22.643	0.328	23.234	20.562	0.430	24.387	21.606	0.371	
	Test Score	23.243	19.806	0.451	23.605	20.007	0.433	25.617	21.824	0.397	26.412	22.450	0.359	23.015	19.113	0.441	24.001	20.126	0.392	
Linear Regression	Train Score	13.445	10.651	0.825	15.599	12.153	0.763	12.379	9.592	0.854	15.769	12.110	0.756	12.070	9.823	0.846	14.249	11.255	0.785	
	Test Score	13.075	10.065	0.826	12.722	9.589	0.835	15.487	10.483	0.779	14.312	9.298	0.812	11.141	8.588	0.869	10.488	8.148	0.884	
Decision Trees	Train Score	9.407	7.258	0.914	10.691	8.365	0.889	9.690	7.715	0.911	11.215	8.659	0.877	9.729	7.692	0.900	10.501	8.145	0.883	
	Test Score	13.614	10.269	0.812	11.372	8.662	0.868	13.559	11.036	0.831	13.648	11.296	0.829	15.726	12.313	0.739	15.634	12.502	0.742	
Random Forest Regressor	Train Score	4.949	3.174	0.976	6.318	3.965	0.961	4.430	3.314	0.981	5.430	3.740	0.971	4.062	3.229	0.983	4.776	3.405	0.976	
	Test Score	11.094	8.221	0.875	10.890	8.133	0.879	11.303	7.928	0.883	12.328	8.913	0.860	11.218	8.103	0.867	12.439	9.287	0.837	
KNN	Train Score	9.772	6.872	0.907	11.654	8.731	0.868	9.130	6.771	0.921	11.189	8.550	0.877	7.872	6.268	0.935	11.091	8.544	0.870	
	Test Score	12.530	9.509	0.840	14.355	11.229	0.790	12.414	8.879	0.858	15.096	11.770	0.790	12.296	9.026	0.840	14.631	10.489	0.774	
Gradient Boost	Train Score	2.888	2.133	0.992	3.969	2.668	0.985	2.877	2.040	0.992	3.178	2.288	0.990	2.437	1.812	0.994	3.031	2.131	0.990	
	Test Score	8.690	6.314	0.923	8.562	6.292	0.925	9.322	6.084	0.920	10.283	7.074	0.903	9.891	6.818	0.897	10.263	7.210	0.889	
XGBoost	Train Score	0.069	0.040	1.000	0.077	0.046	1.000	0.049	0.030	1.000	0.137	0.072	1.000	0.028	0.019	1.000	0.106	0.067	1.000	
	Test Score	12.269	9.127	0.847	11.004	7.444	0.877	9.646	6.810	0.914	10.085	6.949	0.906	10.164	7.215	0.891	10.596	7.645	0.881	
Neural Networks	Train Score	11.241	8.412	0.877	12.830	9.517	0.839	9.940	7.834	0.906	14.018	10.834	0.807	9.336	7.627	0.908	12.022	9.563	0.847	
	Test Score	11.778	8.725	0.859	11.195	8.085	0.873	13.146	8.916	0.841	13.331	8.722	0.837	10.861	8.663	0.875	11.632	9.341	0.857	
Lasso Regression	Train Score	13.445	10.642	0.825	15.600	12.146	0.763	12.379	9.582	0.854	15.769	12.119	0.756	12.070	9.823	0.846	14.250	11.257	0.785	
	Test Score	13.039	10.035	0.827	12.713	9.582	0.836	15.425	10.423	0.781	14.288	9.263	0.812	11.095	8.567	0.870	10.477	8.133	0.884	
Ridge Regression	Train Score	13.446	10.640	0.825	15.599	12.150	0.763	12.380	9.579	0.854	15.769	12.116	0.756	12.071	9.816	0.846	14.250	11.251	0.785	
	Test Score	13.027	10.017	0.827	12.710	9.574	0.836	15.416	10.404	0.781	14.299	9.270	0.812	11.075	8.556	0.870	10.472	8.133	0.884	
	Train Score	18.198	10.990	0.679				14.906	7.198	0.788				15.853	9.406	0.734				

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Results on Test dataset -3	Support Vector Machines	Test Score	24.572	18.655	0.386	25.582	17.655	0.398	25.317	21.793	0.404	27.273	23.453	0.300	23.317	20.187	0.449	24.640	21.231	0.336
		Train Score	23.079	19.552	0.482	25.199	21.279	0.366	25.131	21.616	0.349	26.929	22.968	0.253	21.379	19.318	0.444	23.721	21.185	0.316
		Test Score	23.572	19.807	0.427	25.807	21.728	0.314	11.581	0.761	0.039	16.104	11.566	0.756	11.649	9.501	0.863	13.523	10.753	0.800
		Train Score	13.159	10.482	0.832	15.485	11.581	0.761	12.165	0.863	0.779	15.675	12.650	0.747	16.617	13.690	0.716	12.476	9.696	0.811
		Test Score	14.207	10.759	0.792	14.653	11.054	0.779	9.690	7.168	0.913	11.458	8.368	0.876	10.607	8.227	0.886	11.161	8.871	0.844
		Train Score	8.503	6.704	0.930	10.728	8.276	0.885	9.690	7.168	0.913	11.458	8.368	0.876	10.607	8.227	0.886	11.161	8.871	0.844
		Test Score	15.874	9.193	0.740	12.514	7.977	0.839	15.626	12.297	0.748	16.184	12.120	0.730	13.630	11.363	0.774	17.103	13.625	0.644
		Train Score	5.376	3.760	0.972	6.098	4.072	0.963	4.502	3.364	0.981	5.809	3.701	0.968	4.771	3.504	0.977	4.977	3.781	0.973
		Test Score	10.196	6.800	0.893	10.852	6.511	0.879	13.234	10.759	0.820	15.041	10.554	0.767	8.329	6.669	0.916	11.081	8.851	0.851
		Train Score	9.404	7.404	0.914	11.143	8.530	0.876	8.710	6.792	0.930	11.666	8.353	0.872	7.890	6.273	0.937	9.808	7.813	0.895
		Test Score	12.331	8.586	0.843	14.460	10.003	0.785	14.274	10.931	0.790	12.384	9.538	0.842	9.750	7.371	0.884	10.500	7.804	0.866
		Train Score	3.288	2.430	0.989	4.118	2.889	0.983	2.167	1.724	0.996	3.378	2.388	0.989	2.415	1.856	0.994	2.997	2.160	0.990
		Test Score	12.650	6.162	0.835	9.499	6.554	0.907	13.131	8.529	0.822	12.105	7.682	0.849	7.575	5.822	0.930	8.047	6.644	0.921
		Train Score	0.046	0.028	1.000	0.158	0.092	1.000	0.025	0.014	1.000	0.095	0.060	1.000	0.010	0.007	1.000	0.062	0.036	1.000
		Test Score	12.234	7.990	0.846	12.189	8.485	0.847	13.236	8.586	0.820	16.059	10.396	0.734	8.675	6.523	0.908	7.356	5.957	0.934
		Train Score	10.776	8.108	0.887	14.081	10.349	0.802	9.975	7.527	0.908	14.686	10.829	0.797	9.870	7.976	0.901	12.361	9.998	0.833
		Test Score	11.835	8.557	0.856	13.470	10.111	0.813	12.982	10.502	0.826	14.721	11.906	0.777	9.982	7.980	0.879	10.893	8.817	0.856
		Train Score	13.160	10.473	0.832	15.486	11.579	0.761	12.165	9.034	0.863	16.104	11.580	0.756	11.649	9.499	0.863	13.323	10.757	0.800
		Test Score	14.224	10.764	0.792	14.682	11.079	0.778	15.678	12.647	0.747	16.631	13.705	0.715	12.472	9.689	0.811	12.216	9.417	0.819
		Train Score	13.160	10.473	0.832	15.485	11.582	0.761	12.165	9.031	0.863	16.104	11.576	0.756	11.650	9.493	0.862	13.323	10.755	0.800
		Test Score	14.215	10.761	0.792	14.670	11.069	0.778	15.675	12.645	0.747	16.625	13.698	0.715	12.457	9.677	0.811	12.210	9.408	0.819
		Train Score	20.490	12.563	0.592	20.270	11.625	0.620	20.270	11.625	0.620	22.161	18.138	0.494	16.745	10.594	0.716	15.617	12.034	0.703
		Test Score	24.043	16.414	0.404	22.161	18.138	0.494	22.161	18.138	0.494	22.161	18.138	0.494	22.161	18.138	0.494	22.161	18.138	0.494
Results on Test dataset -4	Support Vector Machines	Train Score	22.638	19.308	0.522	25.004	21.448	0.405	24.705	21.198	0.444	26.870	22.989	0.325	22.226	19.367	0.510	25.256	21.753	0.353
		Test Score	23.555	19.316	0.315	25.019	20.161	0.228	26.558	23.144	0.207	27.973	24.315	0.114	23.048	20.368	0.283	24.51	21.549	0.199
		Train Score	12.970	10.236	0.843	15.217	11.802	0.780	12.987	9.706	0.846	15.306	11.905	0.781	11.198	9.011	0.876	13.873	11.124	0.805
		Test Score	15.294	12.262	0.711	15.329	12.023	0.710	13.754	10.783	0.786	15.368	12.270	0.733	14.118	11.798	0.731	13.910	11.692	0.739
		Train Score	10.745	8.230	0.892	10.137	8.252	0.902	10.666	8.112	0.896	10.457	8.376	0.898	9.841	7.910	0.904	10.086	7.834	0.897
		Test Score	15.917	12.149	0.687	12.969	9.615	0.792	11.441	9.640	0.852	10.970	9.126	0.864	16.529	12.953	0.631	15.362	12.559	0.681
		Train Score	4.409	3.235	0.982	5.188	3.349	0.974	5.054	3.482	0.977	5.266	3.853	0.974	4.252	3.017	0.982	5.137	3.635	0.973
		Test Score	8.790	6.786	0.905	8.919	7.159	0.902	8.204	6.055	0.924	8.002	6.212	0.927	12.322	9.479	0.795	11.968	9.504	0.807
		Train Score	9.542	7.539	0.915	10.266	7.356	0.900	10.643	7.964	0.897	11.937	9.087	0.867	8.206	6.188	0.933	10.191	7.699	0.895
		Test Score	11.557	8.595	0.835	14.415	10.314	0.744	8.784	6.707	0.913	12.455	9.169	0.824	12.682	9.974	0.783	14.081	10.349	0.732
		Train Score	3.011	2.247	0.992	3.514	2.407	0.988	3.179	2.302	0.991	3.668	2.642	0.987	2.299	1.733	0.995	3.044	2.236	0.991
		Test Score	8.363	6.116	0.914	8.534	6.568	0.910	6.060	4.744	0.958	7.710	5.908	0.933	9.672	7.616	0.874	9.278	7.341	0.884
		Train Score	0.051	0.031	1.000	0.091	0.055	1.000	0.104	0.061	1.000	0.293	0.151	1.000	0.011	0.007	1.000	0.100	0.057	1.000
		Test Score	10.439	8.656	0.866	9.270	7.533	0.894	6.115	4.883	0.958	5.754	4.507	0.963	9.668	7.097	0.874	10.024	7.482	0.864
		Train Score	10.524	7.762	0.897	13.318	10.247	0.831	11.088	8.383	0.888	14.107	11.176	0.814	9.560	7.808	0.909	12.403	9.868	0.844
		Test Score	12.402	9.337	0.810	13.607	9.844	0.772	10.819	8.807	0.867	13.641	10.717	0.789	11.845	9.731	0.811	12.476	10.357	0.790
		Train Score	12.970	10.226	0.843	15.217	11.799	0.780	12.987	9.702	0.846	15.306	11.918	0.781	11.199	9.018	0.876	13.874	11.136	0.805
		Test Score	15.320	12.280	0.710	15.370	12.047	0.709	13.780	10.805	0.785	15.413	12.317	0.731	14.130	11.811	0.730	13.935	11.710	0.738
		Train Score	12.971	10.219	0.843	15.217	11.802	0.780	12.988	9.700	0.846	15.306	11.913	0.781	11.199	9.010	0.876	13.874	11.131	0.805

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Ridge Regression	Test Score	15.268	12.219	0.712	15.330	12.012	0.710	13.760	10.783	0.786	15.385	12.291	0.732	14.099	11.790	0.732	13.912	11.692	0.739	
	Train Score	19.975	12.906	0.628		17.622	11.125	0.717				15.350	9.198		15.766					
Support Vector Machines	Test Score	27.876	19.690	0.041		23.764	17.345	0.360				18.503	15.517	0.538						
	Train Score	22.711	18.857	0.460	24.140	19.991	0.357	25.887	22.283	0.340	27.702	24.080	0.247	23.369	20.235	0.388	24.478	20.753	0.277	
Extra Trees	Test Score	26.519	23.766	0.427	29.027	26.011	0.314	26.488	22.696	0.407	29.201	24.967	0.279	24.774	22.111	0.456	27.740	24.967	0.317	
	Train Score	12.559	9.835	0.835	14.769	11.280	0.759	13.208	9.874	0.828	16.372	12.293	0.737	11.583	9.081	0.850	14.016	10.883	0.763	
Linear Regression	Test Score	15.707	12.291	0.799	15.558	12.033	0.803	12.549	9.832	0.867	12.061	9.024	0.877	12.649	10.171	0.858	12.483	9.874	0.862	
	Train Score	9.456	7.739	0.906	10.616	7.801	0.876	12.374	9.341	0.849	13.363	9.856	0.825	10.588	8.433	0.874	10.916	8.591	0.856	
Decision Trees	Test Score	16.449	10.465	0.780	13.187	9.762	0.858	17.786	14.989	0.733	13.702	11.605	0.841	12.650	10.526	0.858	14.872	11.808	0.804	
	Train Score	4.367	3.166	0.978	5.876	3.991	0.962	5.874	4.178	0.966	6.077	4.112	0.964	4.011	3.152	0.982	4.706	3.221	0.973	
Random Forest Regressor	Test Score	12.118	8.003	0.880	13.118	8.291	0.860	10.010	7.645	0.915	9.054	6.957	0.931	7.195	5.300	0.954	9.005	6.806	0.928	
	Train Score	8.782	6.648	0.919	11.233	8.619	0.861	10.210	7.568	0.897	13.727	9.861	0.815	8.669	6.591	0.916	10.921	8.453	0.856	
KNN	Test Score	14.346	10.164	0.832	15.800	11.786	0.797	9.116	6.948	0.930	14.868	10.557	0.813	10.164	8.233	0.908	13.604	10.800	0.836	
	Train Score	2.695	2.007	0.992	3.461	2.441	0.987	2.481	1.866	0.994	3.565	2.620	0.988	2.460	1.785	0.993	2.730	1.891	0.991	
Gradient Boost	Test Score	15.521	9.246	0.804	14.533	8.613	0.828	8.028	5.567	0.946	8.169	6.209	0.944	8.227	6.139	0.940	7.968	5.923	0.944	
	Train Score	0.030	0.021	1.000	0.131	0.081	1.000	0.018	0.012	1.000	0.117	0.073	1.000	0.034	1.000	0.092	0.050	1.000		
XGBoost	Test Score	12.351	8.781	0.876	12.763	9.154	0.867	10.710	7.458	0.903	8.391	6.255	0.940	9.551	7.376	0.919	8.462	6.481	0.936	
	Train Score	9.745	6.919	0.901	13.338	9.892	0.804	10.859	8.166	0.884	14.385	11.035	0.797	8.992	7.161	0.909	12.347	9.748	0.816	
Neural Networks	Test Score	13.726	10.278	0.847	14.394	11.251	0.831	9.862	7.747	0.918	10.181	7.817	0.912	10.807	8.864	0.896	10.897	8.629	0.895	
	Train Score	12.559	9.818	0.835	14.769	11.281	0.759	13.209	9.869	0.828	16.372	12.303	0.737	11.583	9.084	0.850	14.017	10.896	0.763	
Lasso Regression	Test Score	15.692	12.279	0.800	15.577	12.038	0.802	12.319	9.783	0.868	12.065	9.006	0.877	12.619	10.135	0.859	12.498	9.884	0.861	
	Train Score	12.560	9.816	0.835	14.769	11.279	0.759	13.209	9.863	0.828	16.372	12.301	0.737	11.584	9.076	0.850	14.016	10.890	0.763	
Ridge Regression	Test Score	15.687	12.267	0.800	15.571	12.036	0.803	12.511	9.767	0.868	12.064	9.008	0.877	12.623	10.132	0.859	12.501	9.884	0.861	
	Train Score	19.495	11.229	0.602		21.157	12.948	0.559				21.157	12.948	0.559		16.975	10.979	0.677		
Support Vector Machines	Test Score	23.193	16.448	0.562		20.409	16.793	0.648				20.409	16.793	0.648		19.590	15.069	0.660		
	Train Score	23.664	20.217	0.481	26.140	22.019	0.369	25.055	21.484	0.418	28.602	24.750	0.296	22.742	20.013	0.480	25.613	22.039	0.320	
Extra Trees	Test Score	20.886	17.154	0.465	23.348	19.426	0.331	25.867	22.906	0.305	27.398	23.941	0.221	22.029	18.861	0.391	24.426	21.047	0.252	
	Train Score	14.035	10.978	0.818	15.953	12.079	0.765	13.029	9.478	0.843	17.280	12.533	0.743	11.757	9.433	0.861	13.833	10.925	0.802	
Linear Regression	Test Score	10.870	8.460	0.855	11.673	8.956	0.833	13.086	10.402	0.822	13.970	11.359	0.797	12.040	9.738	0.818	12.208	9.955	0.813	
	Train Score	8.062	6.610	0.940	8.965	6.973	0.926	9.973	7.748	0.908	11.442	8.494	0.887	9.969	7.853	0.900	10.641	8.466	0.883	
Decision Trees	Test Score	14.132	9.498	0.755	14.762	10.484	0.733	11.887	9.997	0.853	13.943	11.226	0.798	15.025	12.544	0.717	16.562	13.818	0.656	
	Train Score	5.490	3.553	0.972	5.025	3.626	0.977	4.567	3.322	0.981	6.611	4.281	0.962	4.504	3.352	0.980	5.780	4.045	0.965	
Random Forest Regressor	Test Score	8.747	6.779	0.906	9.352	7.786	0.893	9.886	7.307	0.899	12.756	9.559	0.831	10.022	8.086	0.874	8.815	6.339	0.903	
	Train Score	10.923	7.703	0.890	11.148	8.595	0.885	9.745	7.034	0.912	12.712	9.348	0.861	8.582	6.784	0.926	10.546	8.155	0.885	
KNN	Test Score	10.107	7.966	0.875	9.270	8.192	0.895	12.022	9.224	0.850	13.870	9.873	0.800	11.580	9.241	0.832	11.796	9.463	0.825	
	Train Score	3.101	2.209	0.991	3.332	2.486	0.988	2.983	2.174	0.992	4.230	3.031	0.985	2.572	1.855	0.993	3.305	2.337	0.989	
Gradient Boost	Test Score	9.355	7.436	0.893	9.466	7.535	0.890	10.407	7.817	0.888	10.210	7.416	0.892	8.017	6.697	0.919	8.391	6.676	0.912	
	Train Score	0.026	0.015	1.000	0.100	0.054	1.000	0.088	0.052	1.000	0.117	0.071	1.000	0.014	0.008	1.000	0.097	0.061	1.000	
XGBoost	Test Score	9.825	7.583	0.882	8.980	7.142	0.901	10.492	7.954	0.886	11.432	8.679	0.864	8.424	6.607	0.911	8.348	6.780	0.913	
	Train Score	11.703	8.684	0.873	13.673	10.288	0.827	10.608	8.021	0.896	15.460	11.548	0.794	9.505	7.461	0.909	12.510	9.822	0.838	
Neural Networks	Test Score	7.312	5.230	0.934	8.156	5.659	0.918	11.581	9.202	0.861	11.830	9.643	0.855	10.195	8.424	0.870	10.892	9.209	0.851	
	Train Score	14.035	10.970	0.818	15.954	12.084	0.765	13.029	9.470	0.843	17.280	12.542	0.743	11.757	9.430	0.861	13.834	10.935	0.802	

Datasets	Algorithms	Scores	Black						Material Removal Rate						Paradiso						Rawsilk								
			Material Removal Rate			Artificial data			Material Removal Rate			Artificial data			Material Removal Rate			Artificial data			Material Removal Rate			Artificial data					
			Normal		rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	
Lasso Regression	Test Score	10.896	8.475	0.854	11.717	8.978	0.832	13.112	10.428	0.822	14.011	11.392	0.796	12.056	9.761	0.818	12.238	9.987	0.812	23.219	20.485	0.422	25.098	21.499	0.268				
	Train Score	14.036	10.967	0.818	15.954	12.079	0.765	13.029	9.466	0.843	17.280	12.539	0.743	11.758	9.423	0.861	13.834	10.931	0.802	24.346	23.584	0.396	26.247	22.775	0.252				
	Test Score	10.872	8.436	0.855	11.687	8.962	0.832	13.117	10.431	0.821	13.994	11.380	0.797	12.046	9.754	0.818	12.225	9.972	0.813	23.053	20.553	0.470	24.053	21.384	0.309				
	Train Score	21.512	11.646	0.571				18.587	10.854	0.680				15.560	9.240	0.763				20.553	18.000	0.470							
	Test Score	19.883	15.138	0.515				29.174	23.069	0.117				20.553	18.000	0.470													
	Support Vector Machines																												
Ridge Regression	Test Score	14.036	10.967	0.818	15.954	12.079	0.765																						
	Train Score	10.872	8.436	0.855	11.687	8.962	0.832																						
	Test Score	Train Score	21.512	11.646	0.571			18.587	10.854	0.680				15.560	9.240	0.763													
	Test Score	19.883	15.138	0.515			29.174	23.069	0.117				20.553	18.000	0.470														
	Support Vector Machines																												
Support Vector Machines	Test Score	14.036	10.967	0.818	15.954	12.079	0.765																						
	Train Score	10.872	8.436	0.855	11.687	8.962	0.832																						
	Test Score	Train Score	21.512	11.646	0.571			18.587	10.854	0.680				15.560	9.240	0.763													
	Test Score	19.883	15.138	0.515			29.174	23.069	0.117				20.553	18.000	0.470														
	Support Vector Machines																												
Random Forest Regressor	Test Score	14.477	3.241	0.980	5.792	3.773	0.966	4.890	3.426	0.977	6.179	4.135	0.963	4.298	3.166	0.980	4.565	3.361	0.976	23.219	20.485	0.422	25.098	21.499	0.268				
	Train Score	9.048	7.021	0.921	9.919	7.790	0.905	9.022	7.210	0.920	7.248	5.942	0.948	9.275	7.452	0.907	9.329	7.089	0.905	24.346	23.584	0.396	26.247	22.775	0.252				
	Test Score	11.049	7.732	0.879	11.994	8.925	0.856	10.761	8.156	0.889	12.245	9.213	0.856	8.557	6.430	0.922	9.825	7.819	0.888	23.053	20.553	0.470	24.053	21.384	0.309				
	Train Score	13.360	11.216	0.827	13.041	10.159	0.836	9.628	7.457	0.909	11.301	9.136	0.875	9.504	7.647	0.902	11.164	8.909	0.865	23.219	20.485	0.422	25.098	21.499	0.268				
	Test Score	2.971	2.237	0.991	3.711	2.595	0.986	3.051	2.144	0.991	3.650	2.504	0.987	2.515	1.827	0.993	3.211	2.295	0.988	24.346	23.584	0.396	26.247	22.775	0.252				
	Test Score	8.299	7.077	0.933	9.522	7.956	0.912	7.040	5.536	0.951	6.963	5.682	0.952	9.051	7.252	0.911	8.061	6.276	0.929	23.053	20.553	0.470	24.053	21.384	0.309				
	Train Score	0.030	0.022	1.000	0.090	0.057	1.000	0.048	0.029	1.000	0.090	0.053	1.000	0.027	0.018	1.000	0.076	0.039	1.000	0.027	0.018	23.053	20.553	0.470	24.053	21.384	0.309		
XGBoost	Test Score	9.277	7.72	0.917	8.510	6.990	0.930	9.314	6.574	0.915	8.260	6.276	0.933	7.362	5.779	0.941	8.281	7.001	0.926	23.219	20.485	0.422	25.098	21.499	0.268				
	Train Score	10.702	7.950	0.887	13.349	10.029	0.822	10.878	8.126	0.886	14.530	10.793	0.797	9.557	7.556	0.902	12.474	9.853	0.819	24.346	23.584	0.396	26.247	22.775	0.252				
	Test Score	11.879	8.998	0.864	12.468	8.773	0.850	10.083	8.122	0.900	11.000	8.750	0.881	8.900	7.158	0.914	9.999	8.044	0.891	23.053	20.553	0.470	24.053	21.384	0.309				
	Train Score	12.868	9.954	0.836	15.352	11.707	0.764	13.346	9.799	0.829	16.987	12.478	0.722	12.317	9.801	0.837	14.298	11.376	0.762	23.053	20.553	0.470	24.053	21.384	0.309				
	Test Score	14.934	12.407	0.784	15.760	12.753	0.760	11.860	9.240	0.862	12.266	10.008	0.852	9.997	7.543	0.891	10.808	7.832	0.873	23.219	20.485	0.422	25.098	21.499	0.268				
	Train Score	12.869	9.955	0.836	15.352	11.706	0.764	13.346	9.798	0.829	16.986	12.473	0.722	12.318	9.795	0.837	14.297	11.371	0.762	23.053	20.553	0.470	24.053	21.384	0.309				
	Test Score	14.925	12.392	0.785	15.744	12.748	0.760	11.866	9.234	0.862	12.254	9.994	0.853	10.012	7.542	0.891	10.805	7.825	0.873	23.219	20.485	0.422	25.098	21.499	0.268				
KNN	Train Score	20.355	11.615	0.590				20.466	11.885	0.597				14.872	8.740	0.763	22.603	19.034	0.445										
	Test Score	22.430	15.931	0.513				26.083	20.345	0.332				22.603	19.034	0.445													
	Support Vector Machines																												
Random Forest Regressor	Test Score	22.376	18.777	0.507	23.170	19.034	0.461	25.319	21.616	0.416	26.702	22.897	0.348	22.328	19.456	0.464	24.011	20.911	0.397	23.219	20.485	0.422	25.098	21.499	0.268				
	Train Score	25.208	21.981	0.382	22.639	0.348	24.929	21.952	0.333	25.787	22.763	0.287	25.175	22.325	0.370	26.373	23.433	0.309	23.219	20.485	0.422	25.098	21.499	0.268					
	Train Score	12.753	9.721	0.840	14.329	10.792	0.794	13.547	9.975	0.833	12.038	0.765	0.765	11.717	9.308	0.852	13.663	10.509	0.805	23.219	20.485	0.422	25.098	21.499	0.268				
	Test Score	15.506	12.655	0.766	16.411	13.217	0.738	11.180	9.222	0.866	11.893	9.708	0.848	12.306	9.804	0.849	13.335	11.046	0.823	23.219	20.485	0.422	25.098	21.499	0.268				
	Train Score	9.797	7.299	0.906	8.330	6.451	0.930	10.571	7.915	0.898	11.031	8.278	0.889	10.239	8.332	0.887	10.238	8.061	0.890	23.219	20.485	0.422	25.098	21.499	0.268				
	Test Score	13.756	10.078	0.816	15.626	10.992	0.762	13.127	11.323	0.815	14.395	11.991	0.778	16.042	13.603	0.744	15.999	13.410	0.746	23.219	20.485	0.422	25.098	21.499	0.268				
	Train Score	5.222	3.547	0.973	5.025	3.556	0.975	4.597	3.428	0.981	6.201	4.278	0.965	4.289	3.174	0.980	5.186	3.726	0.972	23.219	20.485	0.422	25.098	21.499	0.268				
Gradient Boost	Test Score	8.559	6.424	0.929	10.783	8.839	0.887	8.111	6.717	0.929	8.843	7.523	0.916	10.958	8.191	0.871	9.954	7.270	0.902	23.219	20.485	0.422	25.						

Datasets	Algorithms	Scores	Black						Paradiso						Rawsilik					
			Material Removal Rate			Artificial data			Material Removal Rate			Artificial data			Normal			Material Removal Rate		
			rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2
Neural Networks	Test Score	12.894	9.992	0.838	14.907	11.715	0.784	9.165	7.150	0.910	11.127	8.838	0.867	10.951	8.689	0.881	12.363	10.079	0.848	
	Train Score	12.753	9.722	0.840	14.330	10.793	0.794	13.547	9.961	0.833	16.018	12.065	0.765	11.718	9.315	0.852	13.663	10.516	0.805	
	Linear Regression	15.552	12.689	0.765	16.464	13.256	0.736	11.199	9.237	0.865	11.932	9.733	0.847	12.348	9.850	0.848	13.385	11.110	0.822	
	Ridge Regression	12.753	9.722	0.840	14.329	10.798	0.794	13.548	9.957	0.833	16.018	12.063	0.765	11.718	9.309	0.852	13.663	10.513	0.805	
	Support Vector Machines	15.533	12.655	0.765	16.436	13.228	0.737	11.198	9.233	0.865	11.920	9.722	0.848	12.353	9.847	0.848	13.370	11.085	0.822	
	Test Score	19.877	13.031	0.611				19.268	12.260	0.662				16.464	10.240	0.709				
	Train Score	27.507	18.483	0.264				19.729	15.517	0.582				18.500	14.655	0.660				
Random Forest Regressor	Train Score	26.588	22.509	0.297	23.610	19.821	0.435	27.440	23.465	0.294	25.880	22.130	0.366	26.886	23.709	0.284	24.203	21.314	0.412	
	Test Score	28.132	24.920	0.254	25.437	22.221	0.390	28.247	24.248	0.230	26.631	23.473	0.315	23.121	18.714	0.283	22.000	18.277	0.351	
	Linear Regression	12.747	10.215	0.838	14.267	11.077	0.794	11.586	8.895	0.874	13.811	10.748	0.819	12.362	10.054	0.849	14.285	11.490	0.795	
	Decision Trees	15.195	11.282	0.782	15.693	11.807	0.768	16.959	12.397	0.722	17.073	12.166	0.719	10.373	8.466	0.856	10.674	8.623	0.847	
	KNN	9.841	7.977	0.904	9.683	7.805	0.905	9.384	7.269	0.917	9.990	7.719	0.906	9.612	7.459	0.908	10.661	8.140	0.886	
	Gradient Boost	14.780	10.665	0.794	12.013	8.521	0.864	16.685	13.601	0.731	17.802	14.286	0.694	15.672	12.623	0.671	15.552	12.685	0.676	
	XGBoost	5.002	3.276	0.975	5.628	3.884	0.968	3.867	2.881	0.986	5.573	3.418	0.971	4.469	3.367	0.980	4.818	3.537	0.977	
Support Vector Machines	Test Score	10.560	6.710	0.895	10.843	7.558	0.889	11.705	7.848	0.868	15.737	10.611	0.761	12.536	8.545	0.789	12.010	8.086	0.807	
	Train Score	8.730	6.539	0.924	9.636	7.348	0.906	7.648	5.646	0.945	8.214	6.101	0.936	7.615	6.065	0.943	9.308	7.457	0.913	
	Linear Regression	13.141	8.991	0.837	14.844	9.240	0.792	17.193	12.276	0.715	16.946	12.071	0.723	12.470	9.466	0.792	11.648	7.861	0.818	
	KNN	3.307	2.511	0.989	3.898	2.856	0.985	3.126	2.070	0.991	3.479	2.325	0.989	2.672	1.945	0.993	3.432	2.481	0.988	
	Random Forest Regressor	12.875	7.035	0.844	8.444	5.618	0.933	14.726	9.281	0.791	15.175	9.070	0.778	8.353	6.075	0.906	10.009	6.976	0.866	
	Gradient Boost	0.103	0.056	1.000	0.185	0.106	1.000	0.202	0.108	1.000	0.287	0.141	1.000	0.025	0.016	1.000	0.277	0.145	1.000	
	Test Score	10.677	7.595	0.893	9.922	6.552	0.907	15.455	9.732	0.769	16.801	10.013	0.727	10.452	7.701	0.854	10.963	8.010	0.839	
Support Vector Machines	Train Score	10.264	7.917	0.895	12.389	9.471	0.844	9.457	7.592	0.916	12.008	9.477	0.863	9.753	7.938	0.906	12.041	9.587	0.855	
	Test Score	13.256	8.965	0.834	13.900	9.701	0.818	14.346	9.710	0.801	15.455	10.305	0.769	10.199	7.767	0.861	11.742	9.378	0.815	
	Linear Regression	12.748	10.206	0.838	14.268	11.074	0.793	11.587	8.897	0.874	13.812	10.758	0.819	12.363	10.057	0.849	14.285	11.501	0.795	
	Ridge Regression	15.212	11.289	0.782	15.719	11.840	0.767	16.955	12.381	0.722	17.085	12.183	0.718	10.395	8.474	0.855	10.709	8.663	0.846	
	Support Vector Machines	12.748	10.205	0.838	14.268	11.074	0.793	11.587	8.896	0.874	13.811	10.755	0.819	12.363	10.055	0.849	14.285	11.497	0.795	
	Test Score	15.211	11.288	0.782	15.713	11.831	0.767	16.961	12.375	0.722	17.087	12.180	0.718	10.364	8.445	0.856	10.679	8.634	0.847	
	Train Score	15.426	9.844	0.763				18.622	12.313	0.675				16.550	10.708	0.729				
Results on Test dataset - 9	Test Score	28.024	20.310	0.260				21.337	14.310	0.560				19.626	16.552	0.484				
	Extra Trees	23.905	20.210	0.429	24.620	20.904	0.368	25.826	21.985	0.350	26.164	22.204	0.322	23.496	20.345	0.398	23.681	20.455	0.353	
	Linear Regression	13.247	10.258	0.825	16.239	12.107	0.725	12.937	9.418	0.837	27.294	24.347	0.306	27.927	25.027	0.274	25.235	22.358	0.347	
	Decision Trees	9.151	7.430	0.916	9.772	7.321	0.900	9.565	7.517	0.911	11.331	8.494	0.873	15.760	11.575	0.754	11.643	9.170	0.852	
	Ridge Regression	5.446	3.485	0.970	5.786	4.017	0.965	5.035	3.594	0.975	5.276	4.002	0.972	4.345	3.290	0.979	4.935	3.851	0.968	
	KNN	9.099	6.724	0.920	7.831	5.739	0.941	7.550	6.000	0.947	7.375	5.580	0.949	8.845	6.691	0.920	7.683	6.094	0.939	
	Gradient Boost	0.088	0.051	1.000	0.224	0.120	1.000	0.031	0.018	1.000	0.163	0.088	1.000	0.018	0.013	1.000	0.069	0.044	1.000	

Datasets	Algorithms	Scores	Black						Paradiso						RawSilk					
			Material Removal Rate			Artificial data			Material Removal Rate			Artificial data			Material Removal Rate			Artificial data		
			Normal		rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	rmse	mae	r2	
Results	XGBoost	Test Score	10.940	8.114	0.884	9.263	7.117	0.917	6.239	4.995	0.964	7.064	5.421	0.954	7.603	6.031	0.941	8.413	6.474	0.927
	XGBoost	Train Score	10.839	7.822	0.883	14.430	10.736	0.783	11.153	8.290	0.879	14.607	11.262	0.789	9.580	7.569	0.900	12.420	9.983	0.822
	Neural Networks	Test Score	10.470	7.957	0.894	10.643	8.087	0.891	9.962	8.434	0.908	10.734	8.728	0.893	9.898	8.824	0.900	10.261	8.841	0.892
	Neural Networks	Train Score	13.247	10.248	0.825	16.239	12.110	0.725	12.938	9.405	0.837	15.760	11.590	0.754	11.643	9.179	0.852	13.703	10.732	0.783
	Lasso Regression	Test Score	13.923	11.573	0.813	12.933	10.819	0.838	13.637	11.637	0.827	12.496	10.383	0.855	12.599	10.685	0.837	11.585	9.338	0.862
	Lasso Regression	Train Score	13.248	10.239	0.825	16.239	12.110	0.725	12.939	9.395	0.837	15.760	11.583	0.754	11.644	9.177	0.852	13.703	10.725	0.783
	Ridge Regression	Test Score	13.909	11.571	0.813	12.937	10.820	0.838	13.613	11.703	0.827	12.496	10.387	0.855	12.574	10.664	0.838	11.581	9.332	0.862
	Ridge Regression	Train Score	21.765	11.865	0.527				19.359	11.677	0.635				15.843	9.750	0.727			
	Support Vector Machines	Test Score	22.790	17.172	0.498				23.535	17.138	0.484				17.028	13.276	0.703			