


Ceramic Epoxy Pump Coatings

Date reviewed: 10/24/2014

Description of Technology		Energy Saving Opportunity	
Ceramic epoxy pump coatings are epoxy coatings mixed with hard-ceramic particles of alumina, silicon carbide in order to improve wear resistance. The coating can fill cavity. By applying pump coatings, pump's efficiency can be restored or even improved.	Sector(s):	<input checked="" type="checkbox"/> Residential	<input checked="" type="checkbox"/> Commercial & Industrial
	Applicability Criteria:	Industrial usage	
	Efficiency Improvement:	Increase pump efficiency, electricity savings	
	Energy (%) Savings Potential:	~15%	
	Demand (%) Reduction Potential:	Not Applicable	
Strengths		Weakness	
<ul style="list-style-type: none"> The coating can be applied in-house without sophisticated tools or equipment and minimal training Pumping coating restores the pump efficiency and even improves better than original efficiency. Increase service time of the pump 		<ul style="list-style-type: none"> Saving potential is usually relatively low when just used by itself. However can be increased greatly if combined with other retrofit measures such as sandblasting the pumps Savings varies case by case and fairly limited to niche market 	
Third Party Analysis/ Previous MTAC Reviews		Suppliers Known to MTAC	MTAC Status
<i>"Energy Savings Through Refurbishment and Coating"</i> by Paul Maier and Christian King of Monroe County Water Authority		A.W. Chesterton	Acknowledged to have energy savings potential and referred to individual PA for their own EE program consideration
		Dover Pump Solution Group	
		Belzona	
Market Development Issues			
Cost:	Varies		
Market Risk and Barriers:	Relatively short term solution to pump corrosion issues		
Time to Market:	Currently on market		
Simple Pay-back: (Years)	~2 years based per manufacture data		