

Resistance of plastic, rubber and metals

A guideline for the resistance of ubiquitous materials in combination with frequently used Vecom cleaning agents

Number: 2014-02

Introduction

When using cleaning agents, one most likely uses several kinds of tools like temporary storage tanks, hoses, pumps, brushes, dosing equipment etc. Of course, the nature of the construction materials involved has the same variety as the kind of tools, closures and gaskets themselves. At our laboratory we often get questions like:

“Will hoses and gaskets of ‘material X’ be affected by ‘Vecom product Y?’” or “Can I use ‘Vecom product X’ without any problem on ‘material Y?’”

Guidelines

This Technical Bulletin is a good guideline for the resistance of ubiquitous materials in combination with frequently used Vecom cleaning agents. We mainly focus on rubbers and some metals combined with the cleaning agents. The indications in

the table on page 2 are valid for the concentrated products at ambient temperature, based on our current knowledge. In case of any doubts or uncertainties one should contact the laboratory prior to application.



A large variety of cleaning agents, but what can be used safely on which materials?

The abbreviations mean:

NBR	Nitril rubber (acrylonitril-butadiene rubber)
EPDM	Ethenepropenediene rubber
FPM	Viton or fluor rubber
CR	Chloroprene rubber (neoprene)
SBR	Styrene-butadiene rubber
IIR	Butyl rubber (isobutylene-isoprene rubber)
NR	Natural rubber
PDMS	Silicon rubber (polydimethylsiloxane)
CSM	Chlorosulphonated polyethylene rubber
FMVQ / MVQ	Fluorsilicon rubber
PS	Polystyrene
PTFE	Polytetrafluorethene
Alu	Aluminium

The different indications mean:

1 or +	Very resistant
2	Resistant
3 or +/-	Moderate resistant
4 or -	Not resistant
B	Product is a pickling agent, not suitable for long-term contact
U	Unknown



ACIDIC	NBR	EPDM	FPM	CR	SBR	IIR	NR	PDMS	CSM	FMVQ	MVQ	PS	PTFE	AISI 304	Steel	Copper	Alu / zinc
Descaling Liquid Extra	4	1	2	2	4	1	4	3	1	3	4	4	1	-	+	+	-
Descalant NF-Liquid	4	2	4	2	2	1	2	3	2	3	3	U	1	+	+	+	+
Descalant Tankclean	4	2	4	2	2	1	2	3	2	3	3	U	1	+	+	+	+
Descalant Powder NI	4	2	4	2	2	1	2	3	2	3	3	U	1	+	+	+	+
Vecosan TTC-101	4	4	2	2	2	2	2	3	2	4	4	4	1	+	B	B	B
Vecosan TTC-204	4	2	2	2	4	2	4	3	2	3	4	4	1	-	-	+	-
Vecosan Plus	4	2	2	2	4	2	4	3	2	3	4	4	1	+	B	+	-/+
Vecosan TTC-S	3	3	2	2	2	2	2	3	1	4	4	4	1	B	B	B	-
Vecosan Brightner GTM	4	3	1	2	2	2	2	3	1	4	4	4	1	+	+/-	-	B
Vecinox Stainless Steel Cleaner	2	1	1	1	1	1	1	3	1	2	2	4	1	+	B	+	-
Rust Remover	2	1	1	1	1	1	1	3	1	2	2	4	1	+	B	+	-
Vecosan Metal Cleaner	2	1	1	1	1	1	1	3	1	2	2	4	1	+	B	+	-
Vecinox Pickling Liquid 30	4	4	4	4	4	4	4	4	2	3	4	4	1	B	-	-	-
Vecinox Passivating liquid	4	4	4	4	4	4	4	4	2	3	4	4	1	+	-	B	+

NEUTRAL - ALKALINE	NBR	EPDM	FPM	CR	SBR	IIR	NR	PDMS	CSM	FMVQ	MVQ	PS	PTFE	AISI 304	Steel	Copper	Alu / zinc
Vecostar Truckwash	4	1	2	3	2	1	4	2	3	4	3	4	1	+	+	+	+/-
Steamclean HPC-NF	4	1	2	2	2	1	4	4	2	U	4	U	1	+	+	+	+
Steamclean NL	1	1	2	1	1	1	1	3	1	4	3	2	1	+	+	-	-
Steamclean Extra	4	1	2	2	2	1	4	4	2	U	4	U	1	+	+	-	-
TIX Super tankcleaner	4	1	2	2	2	1	4	4	2	U	4	U	1	+	+	-	-
Steamclean Bio	4	1	2	2	2	1	4	3	2	U	4	U	1	+	+	+	+
Truckwash Bio HDs	4	1	3	3	2	1	3	3	3	4	3	4	1	+	+	+	+/-
Veclean HPC Mega	4	1	2	3	2	1	4	4	3	4	3	4	1	+	+	+	+/-
Latex Remover	4	2	2	4	4	2	4	4	2	4	3	4	1	+	+	+/-	-
Multi Cleaner / TP-02	1	1	1	1	1	1	1	1	1	1	1	4	1	+	+	+	+
Tankclean Alkaline	2	2	2	2	2	2	2	3	2	4	3	2	1	+	+	-	-
Tankclean Alkaline Extra	4	1	2	2	2	1	4	4	2	U	4	U	1	+	+	-	-

SOLVENTS	NBR	EPDM	FPM	CR	SBR	IIR	NR	PDMS	CSM	FMVQ	MVQ	PS	PTFE	AISI 304	Steel	Copper	Alu / zinc
Bio Degreaser 165	4	4	1	4	4	4	4	3	4	2	4	2	1	+	+	+	+
Degreaser 156	4	4	1	4	4	4	4	3	4	2	4	U	1	+	+	+	+
C-Clean Eco	4	4	4	4	4	4	4	4	4	4	4	3	1	+	+	+	+
TIX Grease Remover	4	4	1	4	4	4	4	3	4	3	4	3	1	+	+	+	+
Veclean HCA	4	2	4	4	3	3	3	3	4	U	3	3	1	+	+	+	+
GP Degreaser	2	4	1	3	4	4	4	3	4	2	4	2	1	+	+	+	+
Tankclean HD Split	4	4	2	4	4	4	4	3	4	3	4	2	1	+	+	+	+
Resin Cleaner	3	4	1	4	4	4	4	3	4	2	2	3	1	+	+	+	+