

## TECHNICAL INFORMATION

### MaxiSlide™ = Superior Slide



### SLIP TEST

Independent tests were conducted to measure the co-efficient of friction of Rimex's textured stainless steel as compared to non-textured [flat] stainless steel. The latter is more commonly used in processing and other machinery.

- Test Date:* – September 1999.  
*Tests Laboratory:* – Stanger Science & Environment, United Kingdom.  
Document Ref: A3299R1.  
*Tests Criteria:* – The method of ASTM D1894 was used as a guide.

Five of Rimex's MaxiSlide™ patterns and non-textured [flat] stainless steel pieces were formed into test plates which were secured horizontally onto a test bed with the textured surface uppermost. The test plates were placed to have both the longitudinal and transverse pattern directions aligned with the principal axis of the test bed.

100 x 70mm samples of cardboard / paper, plastic, metal and glass were secured to the underside of a sled which was then placed on the test plates. Tests were conducted with the sled having a mass of 5kg and 10kg with the sled traversing horizontally across the test plates by using a tensile testing machine at a crosshead speed of 150mm / min.

The force to initiate and sustain movement at a constant rate was recorded autographically by a load displacement recorder.

## TECHNICAL INFORMATION (Continued)

### SLIP TEST (continued)

The test materials were:

- Cardboard / Paper 100 x 70mm being corrugated packaging material of 3mm thickness with a mass per unit area of 0.424kg/m<sup>2</sup>.
- Plastic 100 x 70mm being 4.5mm thick white ABS (RS Components cat.# 681-615).
- Glass 100 x 70mm 4mm thick.
- Plain metal 100 x 70mm.

In the tables below, the co-efficient of friction has been expressed as a ratio of force to initiate / sustain movement over the vertically applied force induced by the sled mass transversed horizontally across the test plates of textured and non-textured stainless steel.

The tables are formatted to illustrate the product moved and in the order of the MaxiSlide™ patterns yielding the highest increase.

Product Moved	Rimex Pattern	Co-efficient of friction for Rimex textured material	Co-efficient of friction for non-textured material	% Increase / (Decrease)	Pattern Direction
Plastic	7GM	0.19	0.35	86.49	Longitudinal
	Cambridge	0.20	0.35	72.50	Longitudinal
	6WL	0.21	0.35	64.29	Longitudinal
	5WL	0.26	0.35	32.69	Transverse
	2WL	0.26	0.35	32.69	Transverse
	6WL	0.30	0.35	16.95	Transverse
	2WL	0.31	0.35	11.29	Longitudinal
	7GM	0.35	0.35	(1.43)	Transverse
	5WL	0.44	0.35	(21.59)	Longitudinal
	Cambridge	0.47	0.35	(26.60)	Longitudinal
Paper / Cardboard	7GM	0.17	0.29	72.73	Transverse
	Cambridge	0.19	0.29	54.05	Transverse
	2WL	0.19	0.29	54.05	Longitudinal
	2WL	0.19	0.29	50.00	Transverse
	6WL	0.21	0.29	39.02	Longitudinal
	6WL	0.23	0.29	23.91	Transverse
	5WL	0.23	0.29	23.91	Longitudinal
	5WL	0.24	0.29	18.75	Transverse
	7GM	0.25	0.29	16.33	Transverse
	Cambridge	0.26	0.29	9.62	Longitudinal

## TECHNICAL INFORMATION (Continued)

### SLIP TEST (continued)

Product Moved	Rimex Pattern	Co-efficient of friction for Rimex textured material	Co-efficient of friction for non-textured material	% Increase / (Decrease)	Pattern Direction
Glass	6WL	0.13	0.21	61.54	Longitudinal
	5WL	0.14	0.21	55.56	Longitudinal
	2WL	0.14	0.21	55.56	Longitudinal
	Cambridge	0.14	0.21	50.00	Transverse
	2WL	0.15	0.21	44.83	Transverse
	7GM	0.15	0.21	40.00	Transverse
	5WL	0.16	0.21	35.48	Longitudinal
	7GM	0.18	0.21	20.00	Transverse
	6WL	0.20	0.21	7.69	Longitudinal
	Cambridge	0.25	0.21	(16.00)	Longitudinal
Metal	Cambridge	0.16	0.22	41.94	Longitudinal
	6WL	0.16	0.22	37.50	Longitudinal
	2WL	0.16	0.22	37.50	Longitudinal
	6WL	0.17	0.22	33.33	Transverse
	7GM	0.17	0.22	29.41	Longitudinal
	5WL	0.17	0.22	29.41	Longitudinal
	7GM	0.18	0.22	25.71	Transverse
	5WL	0.18	0.22	21.22	Transverse
	2WL	0.21	0.22	4.76	Transverse
	Cambridge	0.22	0.22	0.00	Transverse

