



INTERNATIONAL CAVITATION EROSION TEST

Laboratory Results Summarisation

Laboratory: **TECHNICAL UNIVERSITY OF OSTRAVA**
FLUID MECHANICS LABORATORY
OSTRAVA, Czechoslovakia

Facility: **VIBRATORY RIG (still sample)**

oscillation frequency: 20.0 kHz *tip/sample separation:* 1.0 mm
amplitude: 40.0 μm *impinged area:* 201.0 mm²

working liquid: distilled water, temperature 20°C

Material : PA2 aluminium alloy

<i>specimen</i>	<i>Test duration</i>	<i>Volume loss</i>	<i>Eroded area</i>	<i>Mean&Max Depth of Penetration</i>		<i>Incubation period</i>		<i>MDPR</i>	
	min	mm ³	mm ²	μm	μm	$\tau_{0.2}$ min	τ_{inc} min	<i>max</i> $\mu\text{m}/\text{min}$	<i>ultimate</i>
1.	150	0.0424	16.26	126	129.0	–	0.6	5	1.45
2.	150	0.0536	20.55	141	145.7	–	0.9	8	1.21
3.	150	0.0447	17.14	132	129.8	–	1.2	9	1.42
mean values									
	150	0.0469	2.09	133	134.8	–	0.9	7	1.36

Microhardness distribution, HV_{0.3}

<i>specimen no.</i>	<i>distance from the sample centre</i>			
	0.0	0.25r	0.5r	r
1.	247	252	263	163
2.	238	241	227	210
3.	238	257	249	214
mean values:	241	250	246	196

Enclosures

– specimen photographs