



## Hydro Polymers Technical Service Report

Cold Impact Performance VG754 Matting for Plastic  
Extruders.  
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## 1. BACKGROUND

Plastic Extruders VG754 matting has been used for matting for walk ways for access to air conditioning units on top of buildings. Currently have a contract for Russia where temperatures may go down to  $-40^{\circ}\text{C}$ . Hydro Polymers have been asked how VG754 matting would perform at these temperatures.

### 1. Detail

#### COLD IMPACT TEST

Sample of VG754 black matting was received for cold impact testing. Testing was carried out to IEC 811-4-1, 1995 methodology. The same jig was used but at a drop height of 300mm as opposed to the specification requirement of 100mm with an impact weight of 1.5 and 1.2 kgs. A freezer with maximum capability of  $-40^{\circ}\text{C}$  was used to condition the samples and perform the impact testing.

Eight centimeter square samples were cut from the VG754 matt and 15 samples (Specification calls for 3) were condition for four hours at the set temperature before cold impact testing was carried out. The test report will show number of samples "shattering" on impact and after inspecting for cracks after impact.

## 2. RESULTS

Impact weight	1.5 kg	1.25 kg
Shattering	1	2
Cracks	1	1
No Damage	13	12
Test Temp. Probe $^{\circ}\text{C}$	$-42^{\circ}\text{C}$	$-44^{\circ}\text{C}$

## 3. Findings

Results would indicate from this evaluation if an object is dropped on the mats it situe at the  $-40^{\circ}\text{C}$  the matt would with stand the impact. This though would be subject to the weight of the object dropped. These results should be used as an indication only of the behavior of the VG754 matt.

The extra two degrees measured by comark temperature probe may the reason why two "shattered" at the lesser weight.