

ATTN M/No. 5067 P. 1

392-1742

INTERGULF LTD. **انترجولف المحدودة**
EMPOL DIVISION

Fruity

Pade

PVC COMPOUND: GEF 65 C2

GENERAL DESCRIPTION

- **APPLICATIONS:** Food / General-purpose packaging- extrusion blow molded Containers.
- **PROCESSING NOTES** For a given compound, the temperature profile recommended and other extrusion parameters vary appreciably from one machine to another. An Empol technician will be ready to help customers in establishing the best working condition for each machine if necessary.
- **STABILIZATION** Tin-stabilized
- **IMPACT STRENGTH** Very High-impact resistance
- **FOOD REGULATION** In accordance with most regulations more particularly with EC directives as a food packaging material.

PHYSICAL PROPERTIES

MAIN PROPERTIES	AVERAGE VALUE	UNIT	METHODS
-Appearance	-	GRANULES	
-Apparent bulk density	0.76	g/cm ³	ISO R 60
-Specific Gravity of final product	1.37	-	ASTM D792
-Volatile Matter	< 0.2	% -	ISO R 1269
-VICAT softening point	76	°C	ISO R 306
-SHORE D Hardness	75	D	ISO R 868
-Tensile Strength at break	41	N/mm ²	ISO R 527
-Elongation at break	240	%	ISO R 527
IZOD impact (notched specimen 23° C)	14	KJ/m ²	ISO R 180
-CHARPY impact (notched specimen 23° C)	12	KJ/m ²	ISO R 179
-Flexural Modulus 23° C	2400	N/mm ²	ISO R 178
Permeability to O2 at 20° C - 60% R.H	1.6	cm ³ mm/m ² .24hb	ASTMD1434
CO2 at 20° C - 60% R.H.	13	ar	
H2O at 20° C - 85% R.H.	0.8	cm ³ mm/m ² .24hb	ASTMD1434
		ar	
		g.mm/m ² .24h	DIN 53 122

Declaration: Intergulf (EMPOL), assures that all the ingredients used in this compound are approved for food contact.

THE ABOVE DATA IS BASED ON TEST RESULTS AND, THOUGH GIVEN IN GOOD FAITH, SHALL BE TAKEN NEITHER AS WARRANTY NOR AS GUARANTEE OF COMPOUND PERFORMANCE.



Technical Data Sheet

HDPE F 7665 Polyethylene Resin

High Density Polyethylene Resin for Blow Moulding Applications

HDPE F 7665 Polyethylene Resin is a medium molecular mass grade with good processing properties. HDPE F 7665 Polyethylene Resin exhibits a good surface finish with high hardness and rigidity. HDPE F 7665 Polyethylene Resin is recommended for milk and fruit juice bottles as well as other general purpose bottle applications up to 5 liter where good stiffness is required but environmental stress-crack resistance is not critical. HDPE F 7665 Polyethylene Resin is especially suitable for use in fast cycle reciprocating blow moulding machines for the production of milk and fruit juice containers.

Note: HDPE F 7665 Polyethylene Resin should comply with U.S. FDA 21 CFR 177.1520(c)3.2a regulations and with Europe EU-Directive 2002/72/EC food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Milk and fruit juice containers
- Toiletries containers.
- Household goods containers

PROPERTIES ⁽¹⁾	UNIT	TEST METHOD	VALUE
Physical			
Melt Flow Index, 190 °C/5 kg	g/10min	ISO 1133	2.0
Melt Flow Index, 190 °C/2.16 kg	g/10min	ISO 1133	0.45
Density ⁽²⁾	g/cm ³	ISO 1183	0.956
Viscosity Number	cm ³ /g	ISO 1628-3	280
Mechanical⁽³⁾			
Hardness, Shore D		ISO 868	64
Tensile Yield ⁽⁴⁾	MPa	ISO 527	27
Ultimate Tensile ⁽⁴⁾	MPa	ISO 527	38
Ultimate Elongation ⁽⁴⁾	%	ISO 527	>600
Flexural Stress (3.5% Deflection)	MPa	ISO 178	22
Charpy Notched Impact Strength (23 °C)	kJ/m ²	ISO 179	11
Charpy Notched Impact Strength (-30 °C)	kJ/m ²	ISO 179	8
Thermal			
Vicat Softening Point, Load 5 kg	°C	ISO 306	77
Crystalline Melting Range	°C	ISO 3146-85	130-133

(1) Typical values; not to be construed as specification limits.

(2) Unannealed.

(3) Compression moulded samples.

(4) Test speed 50 mm/min



Technical Data Sheet

Product Stewardship	<p>At Safripol, protecting people and the environment will be a part of everything we do and every decision we make. Each employee has a primary responsibility in ensuring that our products and operations meet applicable government standards.</p> <p>Our goal is to eliminate all injuries, prevent adverse environment and health impacts, reduce wastes and emissions and promote resource conservation at every stage of the life cycle of our products. The success of this rests with each and every individual involved with Safripol products throughout the life cycle.</p>						
Customer Notice	<p>Safripol strongly encourages its customers to review both their manufacturing processes and their applications of Safripol products from the standpoint of human health and environmental quality to ensure that Safripol products are not used in ways for which they are not intended or tested. Safripol personnel are available to answer your questions and to provide reasonable technical support. Safripol product literature, including safety data sheets, should be consulted prior to use of Safripol products. Current safety data sheets are available from Safripol.</p>						
Safripol Medical Application Policy	<p>Safripol will not knowingly sell or sample any product or service ("Product") into any commercial or developmental application that is intended for:</p> <ol style="list-style-type: none"> permanent (Long term) contact with internal body fluids or internal body tissues. Long term is a use which exceeds 72 continuous hours use in cardiac prosthetic devices regardless of the length of time involved; (Cardiac prosthetic devices include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass assisted devices); use as a critical component in medical devices that support or sustain human life; or use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction. <p>Additionally, all Products intended for use in pharmaceutical applications, other than pharmaceutical packaging, must pass the current Pharmaceutical Liability Guidelines.</p> <ul style="list-style-type: none"> New business opportunities require a business assessment prior to sale or sampling of Safripol products. Authorized distributors and resellers will adhere to this medical policy. Safripol does not endorse or claim suitability of their products for specific medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that the Safripol product is safe, lawful, and technically suitable for the intended use. SAFRIPOL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY SAFRIPOL PRODUCT FOR USE IN MEDICAL APPLICATIONS. 						
Disclaimer	<p>The Customer is responsible for determining whether products and the information in this document are appropriate for the Customer's use and for ensuring that the Customer's workplace and disposal/ recycling practices of our products and packaging are in compliance with applicable laws and other governmental enactments. Safripol assumes no obligation or liability for the information in this document.</p> <p>NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.</p> <p>NOTICE: If products are described as "experimental" or "developmental": (1) product specifications may not be fully determined; (2) analysis of hazards and caution in handling and use are required; and (3) there is greater potential for Safripol to change specifications and/or discontinue production.</p>						
Additional Information	<p>Our contact details</p> <table border="0"> <tr> <td>Gauteng:</td> <td>Kwa-Zulu Natal:</td> </tr> <tr> <td>Tel: +27 (0) 11 575 4549</td> <td>Tel: +27 (0) 31 469-0696</td> </tr> <tr> <td>Fax: +27 (0) 11 576 4549</td> <td>Fax: +27 (0) 31 469-0694</td> </tr> </table> <p>Safripol (Pty) Ltd Private Bag X 52, Bryanston, 2021 South Africa</p> <p>Published October 2007</p>	Gauteng:	Kwa-Zulu Natal:	Tel: +27 (0) 11 575 4549	Tel: +27 (0) 31 469-0696	Fax: +27 (0) 11 576 4549	Fax: +27 (0) 31 469-0694
Gauteng:	Kwa-Zulu Natal:						
Tel: +27 (0) 11 575 4549	Tel: +27 (0) 31 469-0696						
Fax: +27 (0) 11 576 4549	Fax: +27 (0) 31 469-0694						



TEST REPORT

Fruitypack
Attention: Mr. Henry Foord

Your ref : Henry Foord
Our ref : Hr19
Enquiries : SC Marais
☎ : (012) 428 6694
Report N° : 2116/Hr19
Page : 1 of 2
Date : 2014/03/20

Plastic Angle

1 DESCRIPTION OF SAMPLE

The following samples were submitted by: Mr. Henry Foord of Lynette Foord t/a Fruitypack.

SABS Sample No.	Quantity	Sample Description
Hr19	2 x 2m	No markings

2 SAMPLE SUBMITTED

The samples were received in good condition and suitable for testing.

Date sample received : 15/01/2014
Test commencement date : 20/03/2014
Test completion date : 20/03/2014

3 TEST REQUESTED

Tensile Strength

4 METHODS OF TESTING

Methods used according to SANS 967:2013

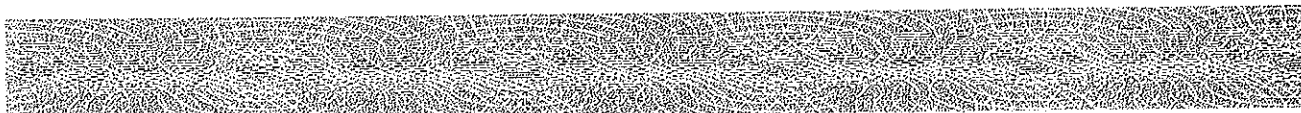
5 CONDITIONING AND TEST ENVIRONMENT

23 ± 2°C, 50 ± 5% relative humidity.

1 Dr Lategan Road, Groenkloof, Private Bag X191, Pretoria, 0001.
Tel +27 12 428 7911. Fax +27 12 344 1568

SABS Commercial SOC Ltd conducted a conformity assessment pertaining to a sample of the product, commodity or system identified and the outcome recorded in this test report only relates to that specified sample. The conformity assessment outcomes recorded in the test report do not imply SABS Approval of the quality and/or performance of the sample(s) in question and the test results do not apply to any similar sample that has not been tested. (Refer also to the conditions of test printed on the back of this page.) This report may not be reproduced except in full. The authenticity of this report and its contents can be confirmed by contacting the person who signed it.

TP60018336



SABS Commercial (SOC) Ltd

Report No 2116/Hr19

Page 2 of 2

6 SUB CONTRACTING OF LABORATORIES

All tests were performed by: the Rubber & Plastics Laboratory of SABS Commercial (SOC) Ltd.

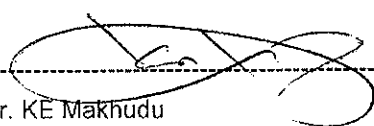
7 RESULTS

Hr19


Property	Result
Tensile Strength, Mpa	49

8 Disposal of samples

All samples will be disposed of, if not collected within three months from date of this report.

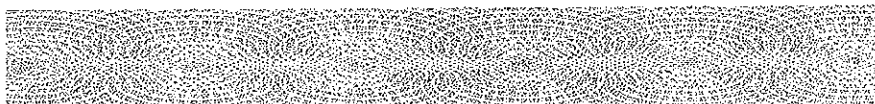


 Mr. KE Makhudu
 TEST OFFICER: RUBBER AND PLASTICS



 Mrs. SC Marais
 ACTING MANAGER: RUBBER AND PLASTICS, PAINTS AND SEALANTS

This test was performed by SABS Commercial (soc) Ltd. This report relates only to the specific sample(s) tested as identified herein. It does not imply SABS approval of the quality and/or performance of the item(s) in question and the test results do not apply to any similar item that has not been tested. (Refer also to the complete conditions printed on the back of official test reports.)



TEST REPORT

Fruitypack
Attention: Mr. Henry Foord

Your ref : Henry Foord
Our ref : Hr19
Enquiries : SC Marais
☎ : (012) 428 6694
Report N° : 2116/Hr19
Page : 1 of 2
Date : 2014/03/20

Plastic Angle

1 DESCRIPTION OF SAMPLE

The following samples were submitted by: Mr. Henry Foord of Lynette Foord t/a Fruitypack.

SABS Sample No.	Quantity	Sample Description
Hr19	2 x 2m	No markings

2 SAMPLE SUBMITTED

The samples were received in good condition and suitable for testing.

Date sample received : 15/01/2014
Test commencement date : 20/03/2014
Test completion date : 20/03/2014

3 TEST REQUESTED

Tensile Strength

4 METHODS OF TESTING

Methods used according to SANS 967:2013

5 CONDITIONING AND TEST ENVIRONMENT

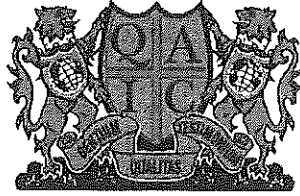
23 ± 2°C, 50 ± 5% relative humidity.

1 Dr Lategan Road, Groenkloof, Private Bag X191, Pretoria, 0001.
Tel +27 12 428 7911. Fax +27 12 344 1568

SABS Commercial SOC Ltd conducted a conformity assessment pertaining to a sample of the product, commodity or system identified and the outcome recorded in this test report only relates to that specified sample. The conformity assessment outcomes recorded in the test report do not imply SABS Approval of the quality and/or performance of the sample(s) in question and the test results do not apply to any similar sample that has not been tested. (Refer also to the conditions of test printed on the back of this page.) This report may not be reproduced except in full. The authenticity of this report and its contents can be confirmed by contacting the person who signed it.

TP80019336

Certificate of Registration



The Governing Board of
Q.A. International Certification Limited
hereby grants to

Tri-Pack Plastics Ltd

Estate Road No. 1, South Humberside Industrial Estate, Grimsby,
North East Lincolnshire, DN31 2TB

Registration No : QAICL/UK/BRC/273

BRC Site Code : 4923098

Auditor Number : 110004

the right to be listed in the Directory of Registered Companies in confirmation that the services offered by the Company are provided in accordance with the requirements of the:

BRC/IoP Global Standard for Packaging and Packaging Materials

(Issue 4 : February 2011)

Scope: Silk-screen printing, cut & crease flat bed die cutters, platen die cutters, four corner gluing machines, die-cutting using cold and edge-sealing processes & ultra-sonic welding, case erectors, wrapping machinery. Repro computer to film. The process incorporates packaging in PP

Risk Category: High

Grade Achieved: A

Exclusions from scope: None

Date of audit: 26th November 2013 — Issue date: 13th January 2014

Re-audit due: 5th December 2014 — Expiry date: 16th January 2015

Signed for and on behalf of the Board

CHIEF EXECUTIVE

SCHEME MANAGER

This Certificate of Registration is granted subject to the Regulations approved by the Board

If you would like to feedback comments on the BRC Global Standard or the audit process directly to BRC, please contact enquiries@brcglobalstandards.com

QA INTERNATIONAL

Q.A. International Certification Ltd.
Dudley Court
Dudley Road
Darlington
Co. Durham
DL1 4GG

Tel: +44 (0)1325 384272

