# BIOTEC

**COMPOTEC® BIOTEC** is a multy-layer thermoplastic hose, manufactured from several Polypropylene, Polyethylene, Polyester films, reinforced with high tensile fabrics, and an external Class 1 Fire retardand cover. First layer, in direct contact with conveyed product, is made in a special film, 100% resistant to aromatics and MTBE. **COMPOTEC® BIOTEC**, includes in its construction an UHMW PLT Seamless tube film, to avoid any possible leak and guarantee a gas-tight construction.

**Application: COMPOTEC® BIOTEC** hose, is a Biofuel suction and discharge hose, particularly suitable for such applications due to its excellent chemical resistance and its relative lightweight and flexibility. A hose designed for suction & discharge of products at temperatures from - 40 to +100°C.

**COMPOTEC BIOTEC HOSES** indicates products which have compatible chemical resistance with all types of new alternative fuels, such as:

**Bioethanol** (up to E98)
**Biodiesel*** (up to B100)

And traditional petroleum-based fuels:

**Gasoline**
**Diesel**
*Applies to biodiesels which meet ASTM D6751 criteria

**BIOTEC 85** is a special fuel hose, designed to handle all grades of **ETHANOL** fuel blends. **Biotec 85** hose is built with a specialized combination of high performance films and fabrics designed to handle today's fully concentrated alternative fuels. **Bioethanol** is readily made from the starch or sugar in crops such as corn, wheat, beet and sugarcane.
Bioethanol is a clear, colourless, flammable, oxygenated hydrocarbon which can be used as a transport fuel. This can be blended at any level with gasoline to create a biofueal blend.

**BIOTEC 100**, is an alternative fuel hose, designed to handle all grades of **BIODIESEL** including 100% neat biodiesel . **Biotec 100** hose is built with a specialized combination of high performance films and fabrics designed to handle today's fully concentrated alternative fuels. **Biodiesel** or FAME (Fatty Acid Methyl Ester) is produced from different sources like soft oils (i.e. rape seed and soy bean oil, etc) and tropical oils (palm and coconut oil, etc.); this can be blended at different percentages with petroleum diesel to create a biodiesel blend.

This product can reduce air pollutant emissions in particular the lack of sulfur allows the gradual elimination of this substance as the main cause of the formation of acid rain. Another important aspect from the ecological point of view is the amount of carbon dioxide that the Biodiesel releases during combustion, which is exactly that absorbed by the plants during their growth, this offers the possibility of avoiding the accumulation of carbon dioxide, because of "greenhouse" effect.

***Non-permeable construction*** – won't swell or become stiff like conventional thermoplastic/rubber hoses. Long life reduces operating costs.

***Lightweight*** – much lighter than conventional Thermoplastic/rubber hoses

***Superior flexibility*** – especially in sub-zero weather.

***Electrical continuity -*** Electrical continuity is achieved by the two wires bonded to the end fittings, this helps dissipate accumulated charge and to avoid static flash. The electric resistance of hose assemblies is less than 1 ohm/mt, as required by EN ISO 8031:2009, 4.7. Upon request it's possible to manufacture **BIOTEC** hoses in accordance to the Directive 94/9/EC "ATEX", with a special outer antistatic black cover and cable for ground connection.

All **COMPOTEC®** hoses are 100% Antistatic - Electrically continuous, meets the EN, CE, AS, U.S. Coast Guard requirements, NAHAD Guidelines, are Lloyds and DNV approved and ATEX certificate can be released on request#

COMPOTEC®


Lloyd's Register
Type approved
www.lr.org

## HEAVY DUTY BIOFUELS SUCTION & DISCHARGE HOSE EN 13765:2010 TYPE 3

| Size | | Maximum W.P. | | Safety | Bend Radius | | Weight | Maximum Length | |
|---|---|---|---|---|---|---|---|---|---|
| mm | Inch | Bar | P.S.I. | | mm | Inch | Kg. / mt | Mt. | Feet |
| 20 | 3/4" | 15 | 200 | 5:1 | 75 | 3 | 0,73 | 40 | 132 |
| 25 | 1" | 15 | 200 | 5:1 | 100 | 4 | 0,90 | 40 | 132 |
| 32 | 1 1/4" | 15 | 200 | 5:1 | 125 | 5 | 1,27 | 40 | 132 |
| 40 | 1 1/2" | 15 | 200 | 5:1 | 140 | 5 1/2 | 1,49 | 40 | 132 |
| 50 | 2" | 15 | 200 | 5:1 | 180 | 7 | 2,18 | 40 | 132 |
| 65 | 2 1/2" | 15 | 200 | 5:1 | 220 | 8,5 | 3,09 | 40 | 132 |
| 75/80 | 3" | 15 | 200 | 5:1 | 180 | 11 | 3,66 | 40 | 132 |
| 100 | 4" | 15 | 200 | 5:1 | 400 | 16 | 5,28 | 40 | 132 |
| 150 | 6" | 15 | 200 | 5:1 | 575 | 23 | 11,90 | 40 | 132 |
| 200 | 8" | 15 | 200 | 5:1 | 800 | 32 | 15,65 | 40 | 132 |
| 250 | 10" | 15 | 200 | 5:1 | 1000 | 40 | 22,53 | 25 | 82 |
| 300 | 12" | 15 | 200 | 5:1 | 1200 | 48 | 31,78 | 25 | 82 |

## BIOTEC

| Code | BIOTEC 85 | | BIOTEC 100 | |
|---|---|---|---|---|
| Applications | Heavy Duty Biofuels liquid transfer | | | |
| Colour | Green | | Black | |
| Temperature | -40 +100°C | | | |
| Ref | ZZ | ZX | XZ | XX |
| Inner wire | Galv.Steel | Galv.Steel | St.Steel | St.Steel |
| Outer wire | Galv.Steel | St.Steel | Galv.Steel | St.Steel |

# BIOTEC

DNV Det Norske Veritas Cert. n. CERT-04193-99-AQ IND-SINCERT
EN 13765:2010, approved from CEN
Directive 97/23/CE “PED” with operating Procedures certified from DNV - CE PED 07.0056.06/2585
Directive 94/9/CE “ATEX” hose for explosive atmospheres, Cert. held by DNV Rec. nr. CE ATE 08.0117.06/2617 - (AS 2430.1-1987)
BS 5842:1980 (Conf. 1986)
BS 3492:1987
AS 2683-2000 (Hose & hose assemblies for distribution of petroleum and petroleum products)
AS 2117-1991 (Hose & hose assemblies for petroleum and petroleum products - Marine suction and discharge)
NAHAD Guidelines (NAHAD 600/2005)

Test procedures:

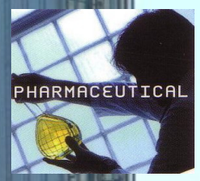
BS 5173-102.10:1990 section 102.10 - (EN ISO 1402)
AS1180.5-1999 (method 5)
AS 1180.13B (Electrical resistance)
AS1180.13C (Electrical continuity)

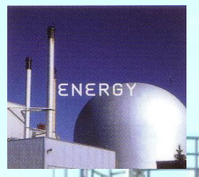
Type Approval

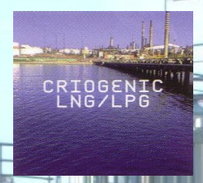
Lloyd’s Register Type Approved - Cert. N° 13/00002
DNV - Det Norske Veritas - Type Approval Cert. N° P-12369
RINA - Registro Italiano Navale - Cert. N° MAC/81398/1/TO/99
Russian Maritime Register of Shipping
IBC Code Chapter 5 - Ship’s Cargo hoses
IMO Chemical Carrier Code - Paragraphs 2:12 and 5:7

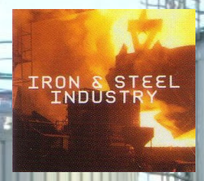
Welding Process

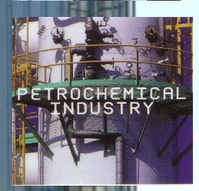
in according to EN 15608:2005 - EN 439:1996 - EN 15614-1:2005 - EN 6848:2005
- EN 12072:2001 certified by DNV - Det Norske Veritas
in according to ASME IX certified by RINA

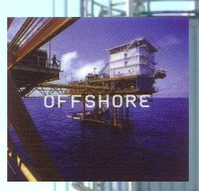


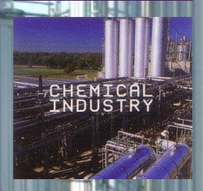










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