

**HD –EX 3 - 80**  
**License Grade Code HM 5010 T2N**

**1) Product Description :**

“EX3-80” is a high density polyethylene with 1-Butene as co monomer .It is natural, good ESCR, good impact strength, tough and rigid pipe resin.

**2) Applications:**

- Pipe extrusion PE 80 class
- Industrial and pressure pipe , Gas pipe, drinking water pipe
- Pressure less pipe , relining , fittings

**3)Typical data**

| PROPERTY  | TEST METHOD   | UNIT              | TYPICAL VALUE*     |
|---|---------------|-------------------|--------------------|
| Mass density (23oC)                               | ISO 1183      | g/cm <sup>3</sup> | 0.945              |
| Melt Flow Rate (190oC/5.0kg)                      | ISO 1133      | g/10min           | 0.45               |
| Melt Flow Rate (190oC/21.6 kg)                    | ISO 1133      | g/10min           | 12                 |
| Stress at Yield                                   | ISO 527       | MPa               | 22                 |
| Flexural Creep Modulus (4point, 1min)             | DIN 19537-2   | MPa               | 950                |
| Tensile Modulus (23oC, v = 1mm / min ,Secant)     | ISO 527       | MPa               | 850                |
| Stress at Break                                   | ISO 527       | MPa               | 35                 |
| Elongation at Break                               | ISO 527       | %                 | >850               |
| Elongation at yield                               | ISO 527       | %                 | 8                  |
| Softening Temperature                             | ISO 306       | oC                | 67                 |
| Brittle Temperature                               | ASTM D746-72  | oC                | < - 80             |
| Shore D hardness                                  | ISO 868       | -                 | 60                 |
| ESCR in Full Notch Creep Test (80oC, 2% Arcopal ) | ISO CD 16770  | h@4.0 MPa         | 50                 |
| Impact strength (23oC)                            | ISO 179/1eA   | Kj/m <sup>2</sup> | 23                 |
| <b>Expected Properties on Application</b>         |               |                   |                    |
| S4 Test (RCP)                                     | ISO DIS 13477 | Bar               | P <sub>c</sub> > 3 |
| Notch Test (SCG)                                  | ISO DIS 13479 | h@4.0 MPa         | >250               |
| Hydrostatic strength test (80oc)                  | ISO 1167      | h@4.6 MPa         | >1000              |

Typical Values : not to be construed as specifications

**4) Processing condition:**

Recommended melt temperature : 190 - 220<sup>o</sup>C

Producer: Marun Petrochemical Co. Licensor: Basell Packing: 25 Kg plastic bag