

# IP16

## Key Features

**TechRes® IP16** is a chemically resistant perfluoroelastomer designed especially for aggressive chemical environments. It offers the highest resistance to almost all chemicals, including like hot amines, high temperature organic and inorganic acids, alkalis, ketones, esters and alcohols. This product exhibits excellent mechanical properties, such as excellent tensile strength as well as low compression set, therefore performs well in both static and dynamic conditions.

## Typical Physical properties

Color	Black
100% Modulus <sup>a</sup> , Mpa	6.9
Tensile Strength <sup>a</sup> , Mpa	19.3
Elongation at break <sup>a</sup> , %	173
Hardness Shore A <sup>b</sup>	78
Compression Set <sup>c</sup> , % (70 hr at 200°C)	23
Max. Continuous Service Temperature, °C	230

<sup>a</sup> ASTM D412(dumbbell test specimens)

<sup>b</sup> ASTM D2240(pellet test specimens)

<sup>c</sup> ASTM D395B(AS568 #214 O-Ring test specimens)



PRODUCT INFORMATION

## Features and Benefits

Excellent resistance to hot amines / Outstanding resistance to steam / Excellent mechanical properties /  
Excellent compression set at high temperatures

## Applications

Chamber lip seals / Gate valve seals / Gas inlet seals / Gas outlet seals / Slit valve seals

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## Fluid(Hot Amines) Resistance

Volume Swell, % Compound	Ethylenediamine, 100°C 72 h	Ethylenediamine, 100°C 168 h	MEA – ethanolamine, 150°C 72 h
TechRes® IP16	+6.5	+9	+17
TechRes® 4075	+34	+59	Sample Failed
Competitive FFKM "B1"	+9.8	+18.5	Sample Failed

PRODUCT INFORMATION

## FLUID RESISTANCE OVERVIEW

		Symbol	Volume Swelling(%)
Inorganic acids	A	A	<10%
Organic acids	A	B	10-30%
Alkalis	A	C	30-50%
Amines (RT)	A	D	>50%
<b>Hot amines (&gt; 70°C)</b>	<b>A</b>		
Water / Steam	A		
Ketones	A		
Esters	A		
Ethers	A		
Aldehydes	A		
Alcohols	A		
Hydrocarbons	A		
Sour gas	A		
Lubricants	A		
Fluorinated fluids	C		