

EBCO ethylene-n-butyl acrylate-carbon monoxide terpolymer

PARAMETER	UNIT	VALUE	REFERENCES
GENERAL			
Common name	-	ethylene-n-butyl acrylate-carbon monoxide terpolymer	
Acronym	-	EBCO	
SYNTHESIS			
Monomer(s) structure	-	$\text{H}_2\text{C}=\text{CH}_2 \quad \text{H}_2\text{C}=\overset{\text{O}}{\parallel}\text{C}\text{OCH}_2\text{CH}_2\text{CH}_2\text{CH}_3 \quad \text{CO}$	
Monomer(s) CAS number(s)	-	74-85-1; 141-32-2; 630-08-0	
Monomer(s) molecular weight(s)	dalton, g/mol, amu	280.5; 128.2; 28.01	
Monomer ratio	-	65/25/10	
COMMERCIAL POLYMERS			
Some manufacturers	-	DuPont	
Trade names	-	Elvaloy HP	
PHYSICAL PROPERTIES			
Density at 20°C	g cm ⁻³	0.96-1	
Color	-	clear	
Odor	-	mild acrylate-like	
Melting temperature, DSC	°C	59-63	
Decomposition temperature	°C	250	
Glass transition temperature	°C	-50 to -54	
Maximum service temperature	°C	235	
MECHANICAL & RHEOLOGICAL PROPERTIES			
Tensile strength	MPa	2.2-6.2	
Elongation	%	580-1213	
Shore A hardness	-	59-69	
Melt index, 190°C/2.16 kg	g/10 min	8-100	
FLAMMABILITY			
Ignition temperature	°C	430	
Volatile products of combustion	-	CO ₂ , H ₂ O, CO, organic acids, aldehydes, alcohols,	
TOXICITY			
OSHA	mg m ⁻³	5 (respirable), 15 (total)	
PROCESSING			
Typical processing methods	-	compounding	
Processing temperature	°C	<235	
Applications	-	non-migratory plasticizer and flexibilizer for numerous polymers	
Outstanding properties	-	modification of polymers	

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BLENDS			
Compatible polymers	-	ABS, chlorinated polyolefin, PC, PVC	