



MULTIPLIED PERFORMANCE

## Ethylene-Propylene-Diene-Rubber (EPR, EP(D)M)

The first synthesis ever of an Ethylene-Propylene elastomer copolymer was performed in the late '50's by Nobel Prize Professor Natta and his team.

LVE EP(D)M is produced by slurry polymerization process, which allows the production of a wide variety of grades.

The slurry process does not require solvent nor solvent recovery equipment, improving its sustainability. Monomers are highly soluble in the reaction bulk, therefore high molecular weight polymers can be easily produced with this process; in order to facilitate high molecular weight EP(D)M transformation, a wide range of oil extended grades are made available, in both traditional paraffinic oil or in heavily purified paraffinic white oil.

### Copolymers

GRADE NAME	Mooney Viscosity ML (1+4)@		Polymer composition %wt			Extension Oil Content		Main Applications
	100°C	125°C	Ethylene	Propylene	ENB	%wt	phr	
DUTRAL K CO 034	44	-	72	28	-	-	-	Cables, appliances, polymer modification, oil viscosity modifier
DUTRAL K CO 038	-	60	72	28	-	-	-	Automotive, cables, appliances, polymer modification, oil viscosity modifier
DUTRAL K CO 043	33	-	55	45	-	-	-	Automotive, cables, appliances, polymer modification, oil viscosity modifier, bitumen modification
DUTRAL K CO 054	44	-	59	41	-	-	-	Automotive, cables, mechanical goods, building, bitumen modification, polymer modification, appliances
DUTRAL K CO 058	80	-	52	48	-	-	-	Appliances, polymer modification, oil viscosity modifier
DUTRAL K CO 059	-	79	59	41	-	-	-	Polymer modification, mechanical goods, building

### Terpolymers

GRADE NAME	Mooney Viscosity ML (1+4)@		Polymer composition %wt			Extension Oil Content		Main Applications
	100°C	125°C	Ethylene	Propylene	ENB	%wt	phr	
DUTRAL K TER 4033	30	-	70	25	5	-	-	Automotive, cables, mechanical goods, high hardness profiles
DUTRAL K TER 4038 EP	-	60	69	27	4,4	-	-	Automotive, cables, mechanical goods, building, appliances, polymer modification
DUTRAL K TER 4039	-	77	69	27	4,4	-	-	Automotive, cables, mechanical goods, building, appliances, polymer modification
DUTRAL K TER 4044	44	-	61	35	4	-	-	Automotive, cables, mechanical goods, building, appliances
DUTRAL K TER 4047	-	55	56	40	4,5	-	-	Automotive, mechanical goods, building
DUTRAL K TER 4049	-	76	56	40	4,5	-	-	Automotive, cables, mechanical goods, building, appliances
DUTRAL K TER 4334	-	28	68	27	4,7	30	43	Automotive, cables, mechanical goods, building, appliances
DUTRAL K TER 4436	-	43	67	28	5,5	40	67	Automotive, mechanical goods, appliances, TPV
DUTRAL K TER 4436 WO	-	43	67	28	5,5	40(*)	67(*)	Automotive, mechanical goods, appliances, TPV
DUTRAL K TER 4437	-	57	64	32	4,5	40	67	Automotive, mechanical goods, appliances, TPV
DUTRAL K TER 4437 WO	-	57	64	32	4,5	40(*)	67(*)	Automotive, mechanical goods, appliances, TPV, building
DUTRAL K TER 4535	-	32	65	32	3,4	50	100	Automotive, mechanical goods, building, appliances, cables
DUTRAL K TER 4548	-	47	60	36	4,5	50(*)	100(*)	Automotive, mechanical goods, appliances, TPV
DUTRAL K TER 6148	-	65	53	40	7	15	18	Automotive, mechanical goods, building, appliances
DUTRAL K TER 6235	-	33	61	32	7,4	23	30	Automotive, mechanical goods, building, appliances, cables
DUTRAL K TER 6537	-	43	60	32	8	50	100	Automotive, mechanical goods, appliances, TPV, building
DUTRAL K TER WO65	-	43	60	32	8	50(*)	100(*)	Automotive, mechanical goods, appliances, TPV, building
DUTRAL K TER 7040	-	87	54	40	6,5	-	-	Automotive, mechanical goods, building
DUTRAL K TER 8148	-	68	53	39	8,5	17,5	21	Automotive profile, building, mechanical goods
DUTRAL K TER 9046	67	-	60	31	8,9	-	-	Automotive, mechanical goods, appliances, building

(\*) Pure Paraffinic Oil



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## 乙丙橡胶 (EPR, EP(D)M)

最早的乙烯-丙烯弹性体合成，始于20世纪50年代后期，由诺贝尔奖获得者纳塔(Natta)和他的团队完成。LVE EP(D)M采用悬浮聚合，此工艺可以生产范围广泛的众多牌号。

悬浮聚合工艺不需要溶剂，也无需溶剂回收设备，改善了生产的可持续性。反应单体可高度溶于聚合物本体中，因此，采用这一工艺很容易制得高分子量的聚合物。同时，为了便于高分子量EP(D)M的加工，我们提供了多种充油牌号供可选择，包括传统的石蜡油以及高度纯化的无色石蜡油。

### 二元乙丙胶

牌号	门尼粘度 ML (1+4)@		聚合物成分 %wt			充油含量		主要应用
	100°C	125°C	乙烯	丙烯	ENB	%wt	phr	
DUTRAL K CO 034	44	-	72	28	-	-	-	电线电缆, 电器, 聚合物改性, 油品粘度改性
DUTRAL K CO 038	-	60	72	28	-	-	-	汽车, 电线电缆, 电器, 聚合物改性, 油品粘度改性
DUTRAL K CO 043	33	-	55	45	-	-	-	汽车, 电线电缆, 电器, 聚合物改性, 油品粘度改性, 沥青改性
DUTRAL K CO 054	44	-	59	41	-	-	-	汽车, 电线电缆, 模压制品, 建筑, 沥青改性, 聚合物改性, 电器
DUTRAL K CO 058	80	-	52	48	-	-	-	电器, 聚合物改性, 油品粘度改性
DUTRAL K CO 059	-	79	59	41	-	-	-	聚合物改性, 模压制品, 建筑

### 三元乙丙胶

牌号	门尼粘度 ML (1+4)@		聚合物成分 %wt			充油含量		主要应用
	100°C	125°C	乙烯	丙烯	ENB	%wt	phr	
DUTRAL K TER 4033	30	-	70	25	5	-	-	汽车, 电线电缆, 模压制品, 高硬度制品
DUTRAL K TER 4038 EP	-	60	69	27	4,4	-	-	汽车, 电线电缆, 模压制品, 建筑, 电器, 聚合物改性
DUTRAL K TER 4039	-	77	69	27	4,4	-	-	汽车, 电线电缆, 模压制品, 建筑, 电器, 聚合物改性
DUTRAL K TER 4044	44	-	61	35	4	-	-	汽车, 电线电缆, 模压制品, 建筑, 电器
DUTRAL K TER 4047	-	55	56	40	4,5	-	-	汽车, 模压制品, 建筑
DUTRAL K TER 4049	-	76	56	40	4,5	-	-	汽车, 电线电缆, 模压制品, 建筑, 电器
DUTRAL K TER 4334	-	28	68	27	4,7	30	43	汽车, 电线电缆, 模压制品, 建筑, 电器
DUTRAL K TER 4436	-	43	67	28	5,5	40	67	汽车, 模压制品, 电器, TPV
DUTRAL K TER 4436 WO	-	43	67	28	5,5	40(*)	67(*)	汽车, 模压制品, 电器, TPV
DUTRAL K TER 4437	-	57	64	32	4,5	40	67	汽车, 模压制品, 电器, TPV
DUTRAL K TER 4437 WO	-	57	64	32	4,5	40(*)	67(*)	汽车, 模压制品, 电器, TPV, 建筑
DUTRAL K TER 4535	-	32	65	32	3,4	50	100	汽车, 模压制品, 建筑, 电器, 电线电缆
DUTRAL K TER 4548	-	47	60	36	4,5	50(*)	100(*)	汽车, 模压制品, 电器, TPV
DUTRAL K TER 6148	-	65	53	40	7	15	18	汽车, 模压制品, 建筑, 电器
DUTRAL K TER 6235	-	33	61	32	7,4	23	30	汽车, 模压制品, 建筑, 电器, 电线电缆
DUTRAL K TER 6537	-	43	60	32	8	50	100	汽车, 模压制品, 电器, TPV, 建筑
DUTRAL K TER WO65	-	43	60	32	8	50(*)	100(*)	汽车, 模压制品, 电器, TPV, 建筑
DUTRAL K TER 7040	-	87	54	40	6,5	-	-	汽车, 模压制品, 建筑
DUTRAL K TER 8148	-	68	53	39	8,5	17,5	21	汽车密封条, 建筑, 模压制品
DUTRAL K TER 9046	67	-	60	31	8,9	-	-	汽车, 模压制品, 电器, 建筑

(\*) Pure Paraffinic Oil