

# Microcrystals –TROGAMID® CX films– Don't Miss the Chance

## TROGAMID® CX films

トロガミド® CX フィルムは、光学用途向けに特別に設計された微結晶性透明ポリアミド「トロガミド® myCX」のフィルムです。トロガミド® CX フィルムは無色透明で、かつ、以下の特徴を備えています。

- 軽量
- 優れた耐久性
- 優れた耐薬品性
- 低吸水性
- 寸法安定性
- 耐紫外線（耐候）性
- 低光学分散性

TROGAMID® CX film, a premium optical grade microcrystalline aliphatic polyamide, designed for use in demanding optical applications such as lamination and decoration of optical parts.

TROGAMID® CX film is clear and colorless with following properties:

- Light weight design\*
- Excellent durability
- Outstanding chemical resistance
- Low water absorption
- Good dimensional stability
- High stability against UV irradiation and weathering
- No chemical stress ageing upon contact to suntan lotions including UV-A filters
- Low optical dispersion

\*compare to Polycarbonate

The films based on



## コンポジット Composite

TROGAMID® CX フィルムはインサート成形で TROGAMID® myCX（もしくは TROGAMID® CX7323）と接着することが出来ます。オーバーモールドにより、多層製品が実現可能です。

TROGAMID® CX films can bond to TROGAMID® myCX resin by insert molding. With combination of TROGAMID® CX films and TROGAMID® myCX (as well as TROGAMID® CX7323) overmold, multi-layered composites can be manufactured.

## 供給形態 Availability

650mm 幅未延伸フィルムには 100–540µm 厚のフィルムがあります。

250mm 幅延伸フィルムは 200µm 厚となります。

ロールでのお届けとなりますが、カットしてのお届けも可能です。また、他のフィルムとのラミネーションもリクエストにより可能です。

Chill-roll films in the range from 100 up to 540µm are available. Non-stretched films have variety width up to 650mm.

Films are supplied in roll form with 3" or 6" core.

Cut-to-size sheets are available upon request.

Laminations with other films are also available upon request.



### About Daicel-Evonik

Daicel-Evonik Corporation was formed in 1970, as a joint venture of Evonik Industries AG (formerly Huels AG), Germany, and Daicel Corporation (formerly Daicel Corporation), and has been developing and manufacturing high quality and high performance polymers starting from Polyamide 12, Polyether etherketone, Polyimide. With our capability of technical developments as well as abundant knowledge and experiences accumulated for more than 40 years, we are always striving for improvement in product quality and technical services – from fresh viewpoints and ideas. Excellent product quality and heart to serve customers as well as to respond customers' future needs considering requirements from community and environment: those are the missions of Daicel-Evonik, as a global company.

トロガミド® (TROGAMID®) CX films - Material Properties

項目 Items	試験方法 Test Methods	単位 Units	フィルム厚み Film Thickness (μm)					
			100	200	300	375	540	200
延伸 Film Orientation	-	-	未延伸 Non Stretched					延伸 Stretched
密度 Density 23°C	ISO 183	g/cm <sup>3</sup>	1.02					
<b>機械物性 Mechanical Properties</b>								
破断強度 Tensile Strength	引張試験	MPa	90	90	85	85	80	120
降伏強度 Yield Strength	流れ方向 Tensile test	MPa	45	45	45	45	45	60
破断伸度 Strain at break	MD 100mm/min	%	>200	>200	>200	>200	>200	140
降伏伸度 Strain at yield	ISO 527-3	%	5	5	5	5	5	5
破断強度 Tensile Strength	引張試験	MPa	90	85	85	80	80	80
降伏強度 Yield Strength	垂直方向 Tensile test	MPa	45	45	45	45	45	45
破断伸度 Strain at break	TD 100mm/min	%	>200	>200	>200	>200	>200	>200
降伏伸度 Strain at yield	ISO 527-3	%	5	5	5	5	5	5
<b>熱的性質 Thermal Properties</b>								
ビカット軟化点 Vicat softing temperature Method B 50 N	ISO 306	°C	130					
ガラス転移点 Glass Transition Temperature		°C	140					
<b>光学特性 Optical Properties</b>								
光線透過率 Transmission, optical 400-960nm [D65/10°]	DIN 5036	%	91.75					
イエローインデックス Yellow index [D65/10°]	ISO 527-3		<1					
ヘイズ Haze	ASTM 1003	%	<1					
屈折率 Refractive index	ISO 489		1.516					
アッペ数 Abbe number			52					
<b>その他 Others</b>								
吸水率 Water absorption 23°C, 飽和 saturation	ISO 62	%	3.5					
寸法変化率 Dimensional change	-	%	<0.55					

\* = registered trademark of Evonik Industries AG

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