

Advanced Materials**RenLam[®] CY 219 / Ren[®] HY 5160 or HY 5161
or HY 5162**

LAMINATING SYSTEM

LOW VISCOSITY EPOXY SYSTEMS IN A RANGE OF REACTIVITIES

**KEY
PROPERTIES**

- High mechanical strength at room temperature
- Tack-free at room temperature
- Highly compatible with glass fabrics and fillers
- Tack –free with choice of pot life and curing rate according to hardener
- Can be filled with mineral or metal materials

APPLICATIONS

- Construction of jigs, foundry patterns and tooling aids
- General tool building
- Wet lay-up tools using glass ply
- Backing structures

PRODUCT DATA

Property	Unit	RenLam [®] CY 219	Ren [®] HY 5160	Ren [®] HY 5161	Ren [®] HY 5162
Appearance Colour	visual	Clear liquid Amber	Clear liquid Pale yellow	Clear liquid Pale yellow	Clear liquid Pale yellow
Viscosity at 25°C	mPas	10'000-12'000**	30 - 50**	35 - 55**	30 - 70**
Density	g/cm ³	1.1	1.0	1.0	1.0

*** Specified data are on a regular basis analysed. Data which is described in this document as 'typical' is not analysed on a regular basis and is given for information purposes only. Data values are not guaranteed or warranted unless if specifically mentioned.*

TYPICAL SYSTEM DATA**PROCESSING**

Mix ratio	Parts by weight		
RenLam [®] CY 219	100	100	100
Ren [®] HY 5160	50	-	-
Ren [®] HY 5161	-	50	-
Ren [®] HY 5162	-	-	50

Mix the two components thoroughly in the ratio indicated, then impregnate each layer of cloth as it is laid up to construct the laminate.
Post-curing will improve final properties.

PROPERTIES OF NEAT FORMULATION

Resin/Hardener mix:	Volume	Unit	CY 219 HY 5160	CY 219 HY 5161	CY 219 HY 5162
Appearance			Yellowish	Yellowish	Yellowish
Viscosity at 25°C		m Pa s	900-1000	1000-1200	1000-1100
Pot life at 25°C	500 ml	min	80	40	20
Demoulding time		h	16	12	12

After cure: 7 days at RT or 14 hours at 40°C

Density	ISO 1183	g/cm ³	1.1	1.1	1.1
Deflection temperature	ISO 75	°C	45-50	50-55	55-60

STORAGE

Provided that RenLam[®] CY 219, Ren[®] HY 5160, HY 5161 and HY 5162 are stored in a dry place in their original, properly closed containers at the storage temperatures mentioned in the MSDS they will have the shelf lives indicated on the labels. Partly emptied containers should be closed immediately after use.

**WORKING
CONDITIONS**

The product should be used when in the temperature range 18-25° C.

PACKAGING

System	RenLam [®] CY 219	Ren [®] HY 5160	Ren [®] HY 5161	Ren [®] HY 5162
Quantity and Weight	25 kg	20 kg	20 kg	20 kg
Quantity and Weight	225 kg	4 x 2 kg	4 x 2 kg	4 x 2 kg

**HANDLING
PRECAUTIONS****Caution**

Our products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data sheets for the individual products and should be referred to for fuller information.

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Huntsman Advanced Materials warrants only that its products meet the specifications agreed with the user. Specified data are analysed on a regular basis. Data which is described in this document as 'typical' or 'guideline' is not analysed on a regular basis and is given for information purposes only. Data values are not guaranteed or warranted unless if specifically mentioned.

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