

# Xtreme ChemTemp

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# Westlab ChemTemp<sup>Xtreme</sup>

ChemTemp<sup>Xtreme</sup> is Westlab's laboratory compact laminate. It has an Electron Beam Cured (EBC) surface for added durability and chemical resistance. It meets stringent worktop requirements with the added benefit of a quality appearance.

## FEATURES AND BENEFITS

- Can withstand temperatures up to 180°C for up to 20 minutes without loss of mechanical strength.
- EBC surface for enhanced chemical resistance and hygiene properties.
- Tested with >90 aggressive reagents, including Silver Nitrate.
- GREENGUARD Certified product that meets some of the world's most rigorous and comprehensive standards for low emissions of volatile organic compounds (VOCs)
- Non-porous and easy to clean.
- Suitable for horizontal and vertical use.

## APPLICATIONS

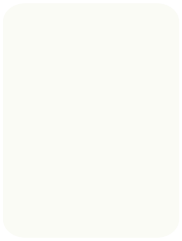
Counters, laboratory worktops, tabletops, partitioning, cabinets, and case-work fronts.



Laboratory worktop in Westlab Compact Laminate **Ashen**.



# Colour Range



Vapour



Ashen



Night Shadow

## SPECIFICATIONS

STANDARD SHEET SIZE	STANDARD THICKNESS	TYPICAL APPLICATIONS
3670 x 1530 mm*	16mm*	Laboratory Furniture Laboratory Worktops

\*Available ex stock (decorated on one side, Carbide finish). Other thickness are available made to order.



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# Material Properties

## Standard Cabinetry (Drawers & Cupboards)

- Max Individual Drawer Load Capacity = 15kg each
- Max Cabinet Load Capacity = 50kg
- Moisture Resistant (not Water Proof)

*\*Drawer & Cabinets are not structural elements and overloading may cause damage. Any damage sustained due to overloading will not be covered under Standard Warranty.*

## TEST ARE BASED ON THE EUROPEAN STANDARD EN438-2-2005

### DIMENSIONAL TOLERANCES

Thickness (clause 5) = unit mm (max.)	16.0 mm: + 0.70 mm († = nominal thickness)
Flatness (clause 9) - unit mm/m (max.) Provided the laminates are stored in the manner and conditions recommended by the manufacturer, they shall comply with the flatness requirements specified when measured in accordance with EN-438-2, Clause 9. The flatness values specified apply to laminated with two decorative surfaces. Limits for laminates with one surface sanded shall be agreed between Laminex and customer.	2.0 ≤ † < 6.0mm      8.0 mm/m 6.0 ≤ † < 10.0mm      5.0 mm/m 10.0 ≤ †                      3.0 mm/m († = † nominal thickness)
Length and width (clause 6) - unit mm Tolerances for cut-to-size panels shall be agreed between Laminex and customer.	-0/ + 10mm
Straightness of edges (clause 7) - unit mm/m (max.) Tolerances for cut-to-size panels shall be agreed between Laminex and customer.	1.5mm/m
Squareness (clause 8) - unit mm/m (max.) Tolerances for cut-to-size panels shall be agreed between Laminex and customer.	

### GENERAL REQUIREMENTS

Resistance to Surface Wear (clause 10) - unit revolutions (min.)	16.0 mm: + 0.70 mm († = nominal thickness)
Resistance to impact by Large diameter ball (clause 21) - unit Drop from height at mm (min.) When tested at the specified drop height, the diameter of indentation shall not exceed 10mm.	2.0 ≤ † ≤ 1400 6.0 ≤ † : 1800
Resistance to Scratching (clause 25) - unit force rating (min.)	
Resistance to Dry Heat (180°C) (clause 16) rating appearance - unit rating (min.)	
Resistance to Wet Heat (100°C)(Test EN12721:1997) rating appearance- unit rating (min.)	
Resistance to immersion in boiling water (clause 12)	<u>Mass increase % (max):</u> 2mm ≤ † < 5mm : 5.0 † < 5mm : 2.0 <u>Thickness increase % (max):</u> 2mm ≤ † < 5mm : 6.0 † < 5mm : 2.0 († = normal thickness) <u>Appearance rating (min):</u> Textured finishes : 4
Dimensional stability at elevated temperature (clause 17) with cumulative dimensional changes % (max.) L = in the longitudinal (or machine) direction of the fibrous sheet material (normally the direction of the longest dimension of the laminate). T = in the cross-longitudinal (cross-machine) direction of the fibrous sheet material (at right angles to direction L).	2mm ≤ † < 5mm L : 0.40 2mm ≤ † < 5mm T : 0.80 † ≥ 5mm L : 0.30 † ≥ 5mm T : 0.60 († = normal thickness)
Resistance to Staining (clause 25) for appearance unit rating (min.)	As specified in the Chemical Resistance table
Lightfastness (Xenon Arc) (clause 27) for contrast with grey scale rating.	4 to 5
Resistance to Cigarette Burns (clause 30) for appearance unit rating (min.)	3
Resistance to Crazeing (clause 24) for appearance unit Grade (min.)	4
Flexural Modulus - EN ISO 178 for stress unit Mpa (min.)	9000
Flexural Strength - EN ISO 178 for stress unit Mpa (min.)	80
Tensile Strength - EN ISO 527 for stress unit Mpa (min.)	60
Density - EN ISO 1183 for density unit kg/m <sup>3</sup> (min.)	1350

# Chemical Resistance

There are no failures in our product with the use of any chemicals tested for a period of 24-hours contact time.

## TEST METHOD

The test conducted by applying 2 or 3 drops of each reagent on the specimen surface. The reagent was at room temperature. After that, the reagent on the surface was covered with a watch glass. After a period of 24 hours contact time under room temperature, the watch glass was removed. The reagent was rinsed off with water. Then the specimen surface was inspected and evaluated from various angles of a distance of 400mm.

## RATING AFTER 24 HOUR EXPOSURE-TEST METHOD BASED ON EN438-2

- 5. No effect**      No visible change of colour / corrosion / damage on surface.
- 4. Excellent**      Very slight change of colour, only visible oat certain viewing angles.
- 3. Good**      Slight change of colour of surface.
- 2. Fair**      Moderate change of colour of surface.
- 1. Failure**      Corrosion / damage on surface.

The results of the chemical tests in the chart above were based on the lowest result achieved for three different Westlab Compact Laminate properties. The individual exceptions to the results are as below:

ITEM	GROUP	%	NIGHT SHADOW	ASHEN	VAPOUR
a	Hydroflouric Acid	48	Excellent	Fair	Excellent
b	Nitric Acid 65% : Hydrochloric Acid 37%	1:3	Excellent	Good	Good
c	Acridine Orange	1	No Effect	No Effect	Excellent
d	Kongo Red	1	No Effect	No Effect	Excellent
e	Iodine 0.1 N	-	No Effect	Good	Good
f	Iodine Crystal	-	Excellent	Fair	Fair
g	Tincture of Iodine	-	Excellent	Fair	Fair
h	Silver Nitrate	Saturated	No Effect	No Effect	Good
i	Futural	-	Excellent	Good	Good

# Chemical Resistance

## RATING AFTER 24 HOUR EXPOSURE - TEST METHOD BASED ON EN438-2

5. No visible change.
4. Slight change of gloss and/or colour, only visible at certain viewing angles.
3. Moderate marked change of gloss and/or colour.
2. Marked change of gloss and/or colour.
1. Surface distortion and/or blistering.

## CHEMICAL RESISTANCE

NO.	GROUP	PERCENTAGE	CHEMICAL RESISTANT GRADE		
			24 HOURS EXPOSURE		
NO.	CHEMICALS	%	VAPOUR	ASHEN	NIGHT SHADOW
<b>ACIDS</b>					
1	Acetic Acid	98	5	5	5
2	Acetic Acid	100	5	5	5
3	Acid Dichromate	5	5	5	5
4	Chromic Acid	60	5	5	5
5	Formic Acid	90	5	5	5
6	Hydrochloric Acid	37	5	5	5
7	Hydrochloric Acid	10	5	5	5
8	Hydrochloric Acid	48	2	4	4
9	Nitric Acid	20	5	5	5
10	Nitric Acid	30	5	5	5
11	Nitric Acid	65	4	4	4
12	Nitric Acid	70	4	4	4
13	Nitric Acid 65% : Hydrochloric Acid 37%	1:3	3	3	4
14	Perchloric Acid	60	5	5	5
15	Phosphoric Acid	85	5	5	5
16	Sulphuric Acid	25	5	5	5
17	Sulphuric Acid	33	5	5	5
18	Sulphuric Acid	77	5	5	5
19	Sulphuric Acid	85	5	5	5
20	Sulphuric Acid	96	4	4	4
21	Sulphuric Acid	98	4	4	4
22	Sulphuric Acid 77% : Nitric Acid 70%	1:1	4	4	4
23	Sulphuric Acid 85% : Nitric Acid 70%	1:1	4	4	4
<b>BASES</b>					
24	Ammonia Hydroxide	28	5	5	5
25	Sodium Hydroxide	10	5	5	5
26	Sodium Hydroxide	20	5	5	5
27	Sodium Hydroxide	40	5	5	5
28	Sodium Hydroxide flake	-	5	5	5
<b>BIOLOGIC STAINS</b>					
29	Acridine Orange	1	4	4	5
30	Alizarin Complexone Dihydrate	1	5	5	5
31	Aniline Blue	1	5	5	5
32	Basic Fuchsin	1	4	4	4
33	Carbol Fuchsin	1	3	3	3

NO.	GROUP	PERCENTAGE	CHEMICAL RESISTANT GRADE		
			24 HOURS EXPOSURE		
NO.	CHEMICALS	%	VAPOUR	ASHEN	NIGHT SHADOW
<b>BIOLOGIC STAINS (CONT)</b>					
34	Carmine	1	5	5	5
35	Eosin B	1	5	5	5
36	Gentian Violet	1	5	5	5
37	Giemsa Stain	1	5	5	5
38	Kongo Red	1	5	4	5
39	Malachite Green Oxalate	1	5	5	5
40	Methy Violet 2B	1	5	5	5
41	Methylene Blue	1	5	5	5
42	Safranine O	1	5	5	5
43	Sudan III	1	5	5	5
44	Wright Stain	1	5	5	5
<b>HALOGENS</b>					
45	Iodine 0.1N	-	3	3	5
46	Iodine Crystal	-	2	2	4
47	Tincture of Iodine	-	2	2	4
<b>SALTS</b>					
48	Iron (III) Chloride	10	5	5	5
49	Copper Sulphate	10	5	5	5
50	Potassium Iodite	10	5	5	5
51	Potassium Permanganate	10	2	2	2
52	Silver Nitrate	1	5	5	5
53	Silver Nitrate	saturated	5	3	5
54	Sodium Chloride	10	5	5	5
55	Sodium Hypochloride	13	5	5	5
56	Sodium Sulfide	saturated	5	5	5
57	Zinc Chloride	saturated	5	5	5
<b>ORGANIC CHEMICALS</b>					
58	Amyl Acetate	-	5	5	5
59	Benzene	-	5	5	5
60	Cresol	-	5	5	5
61	Dimethylformamide	-	5	5	5
62	Formaldehyde	37	5	5	5
63	Furfural	-	3	3	4
64	Gasoline	-	5	5	5
65	Hydrogen Peroxide	30	5	5	5
66	Methyl Ethyl Ketone	-	5	5	5
67	n-Butyl Acetate	-	5	5	5
68	Phenol	90	5	5	5
69	Xylene	-	5	5	5
<b>SOLVENTS</b>					
70	Acetic anhydride	-	5	5	5
71	Acetone	-	5	5	5
72	Acetonitril	-	5	5	5
73	Buthanol	-	5	5	5
74	Carban Tetrachloride	-	5	5	5
75	Chloroform	-	5	5	5
76	Dichloro Acetic Acid	-	5	5	5
77	Dichloromethane	-	5	5	5
78	Diethyl Ether	-	5	5	5
79	Dioxane	-	5	5	5
80	Ethanol	-	5	5	5
81	Ethyl Acetate	-	5	5	5
82	Ethylene Glycol	-	5	5	5
83	Hexane	-	5	5	5
84	Methanol	-	5	5	5
85	Methyl Chloride	-	5	5	5
86	Methylisobutylketone	-	5	5	5
87	Mono Chlorobenzene	-	5	5	5
88	Nepthalene	-	5	5	5
89	Tetrahydrofuran	-	5	5	5
90	Toluene	-	5	5	5
91	Trichloroethylene	-	5	5	5

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