



**Sustainable – Innovative – Close to  
Our Customers**

ALBERDINGK® U 6154

Alberdingk Boley, Inc.





# Alberdingk Polyurethane dispersions – U 6xxx

	<b>U 615</b>	<b>U 6150</b>	<b>U 6154</b>
Solids content [%]	38 - 40	37 - 39	37 - 39
Viscosity [mPas]	50 - 500	50 - 500	50 - 500
pH-value	7.5 – 8.5	7.5 – 9.0	7.5 – 9.0
MFFT [°C]	approx. 0	approx. 0	approx. 13
Solvent [%]	6.5 NEP	Solvent-free	Solvent-free
Neutralization	DMEA	DMEA	TEA
Elongation at break	250	200	300



## ALBERDINGK® U 6154

- Polycarbonate PUD
- Very good wood warming
- Excellent adhesion
- Excellent UV resistance
- Freeze-thaw stable
- Suitable for:
  - Topcoats/basecoats
  - Wood coatings (interior/exterior)
  - Plastic coatings
  - Blend partner with acrylics





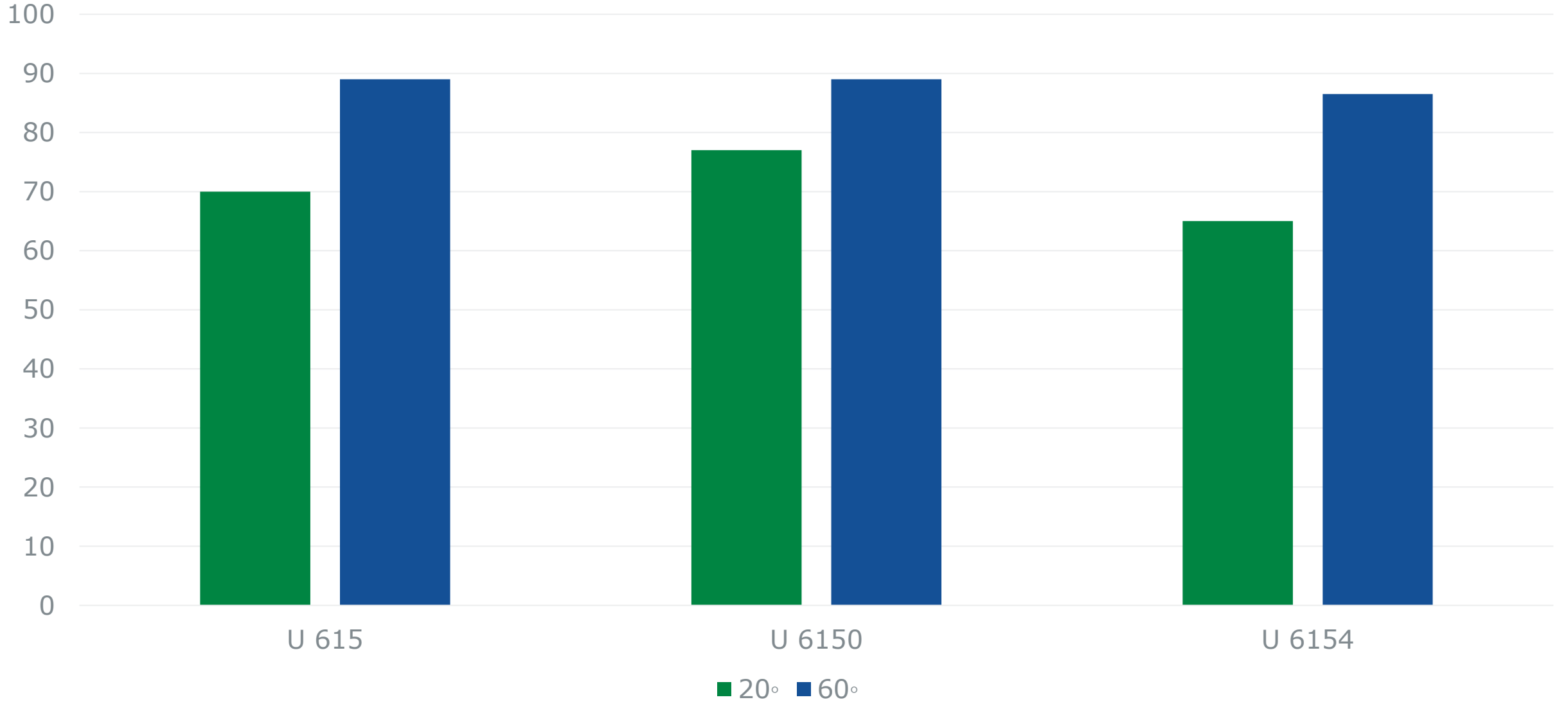
# Formulation

Raw material	Amount [%]
<b>U 6154</b>	<b>84.43</b>
Water	10.18
DPnB	4.60
Tego Foamex 822	0.32
BYK-349	0.32
Rheovis PU 1214	0.15
<b>Total</b>	<b>100.00</b>

Raw material	Amount [%]
Lb/Gal	8.66
% Weight Solids	32.54
% Volume Solids	29.15
PVC	0.00
% dispersant on Pigments	0.00
Grams VOC/liter less water	158.57
Lbs VOC/Gallon Less Water	1.32

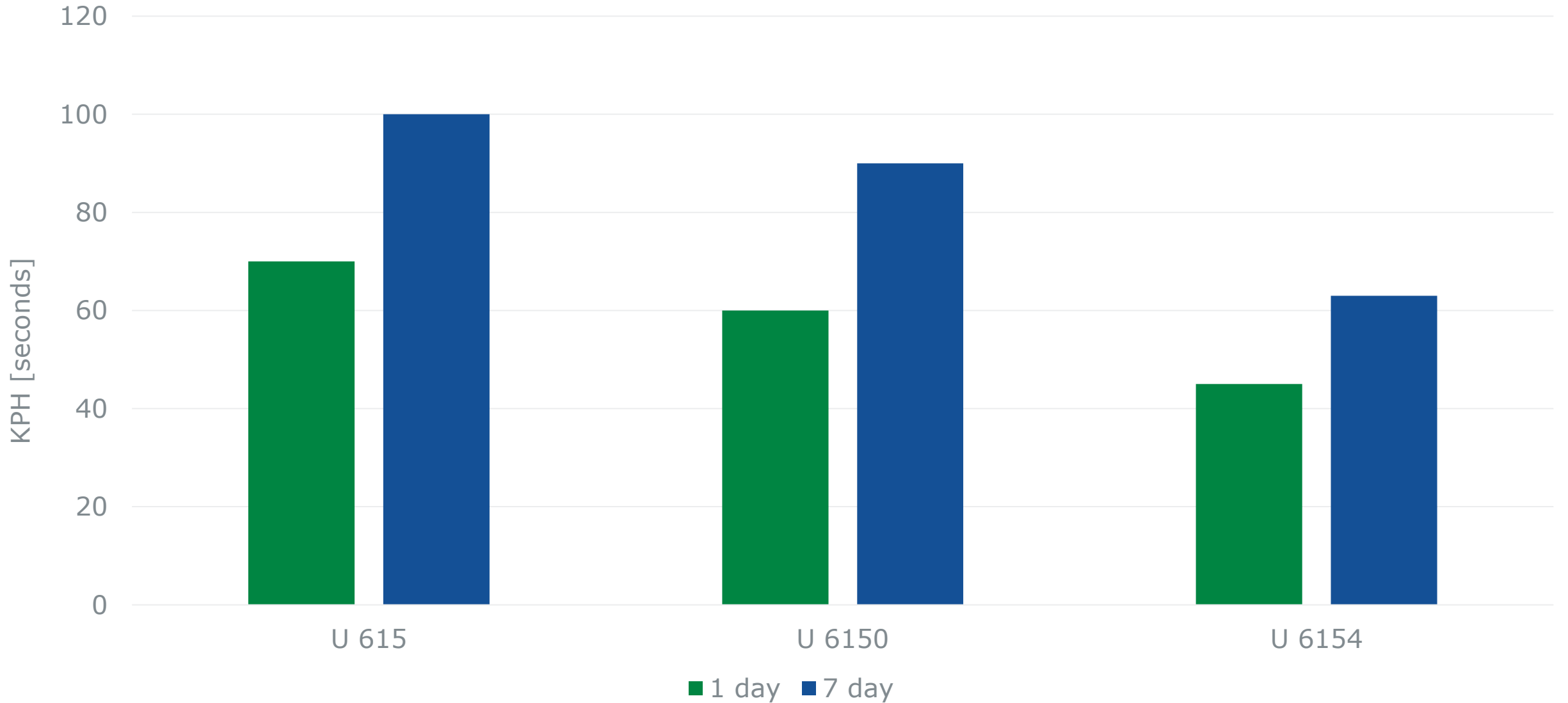


# Gloss

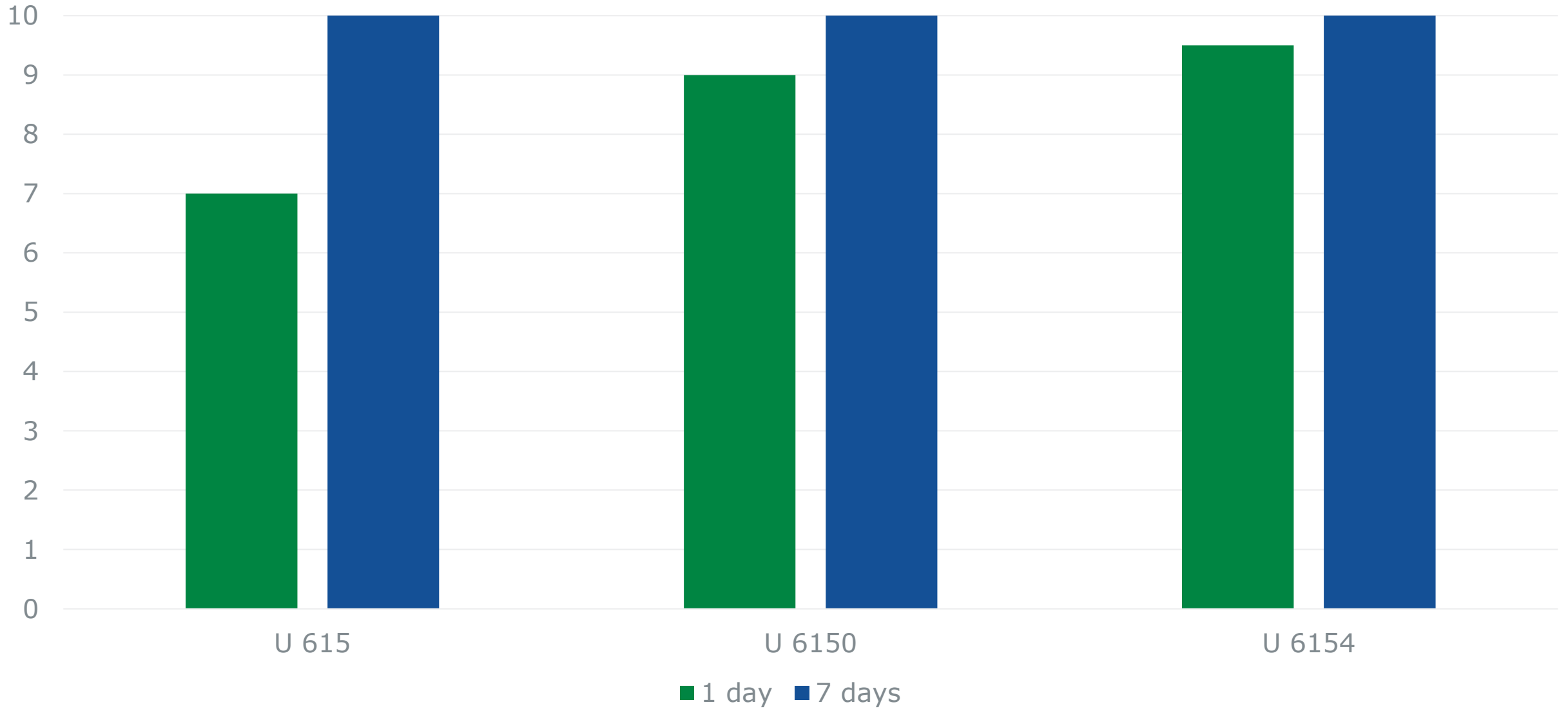




# Hardness

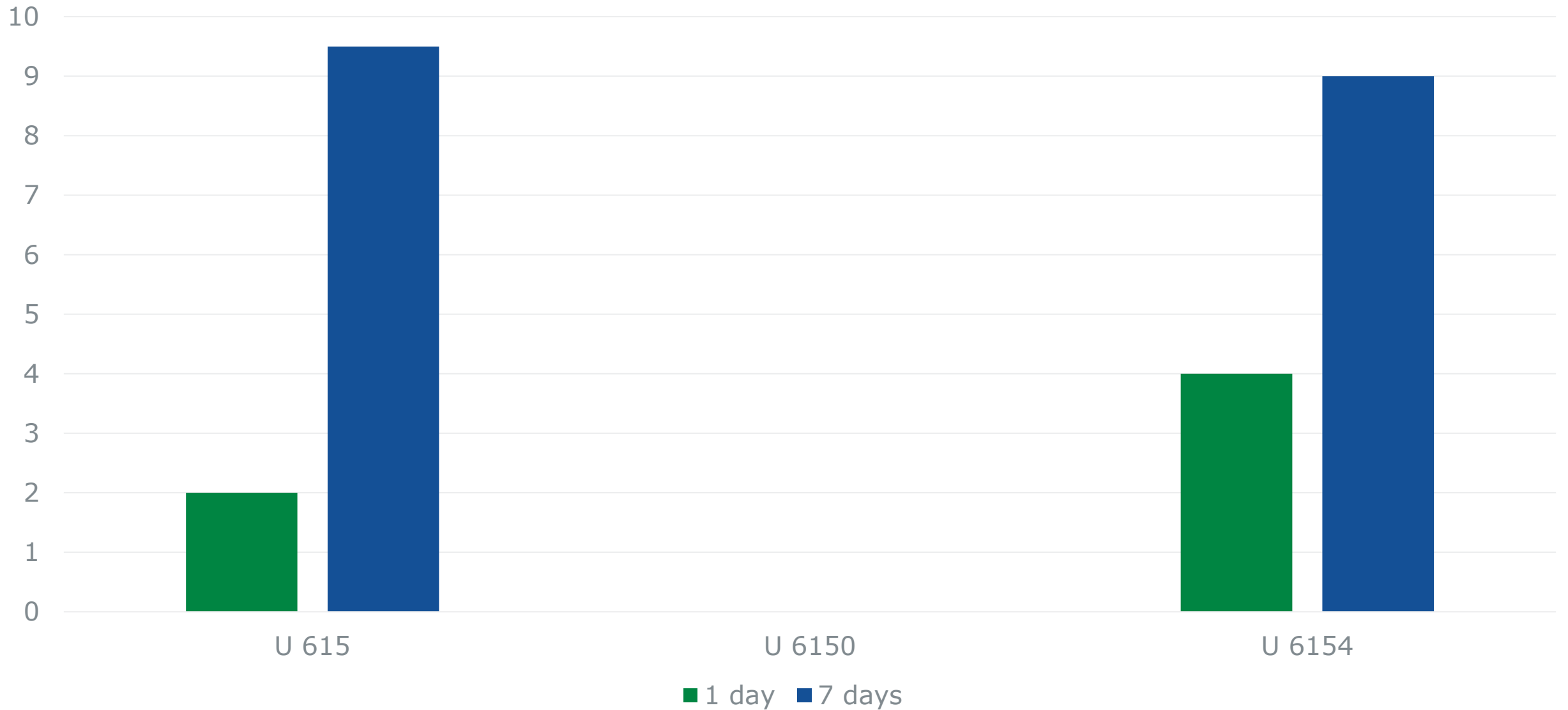


# Block Resistance (Room temperature)





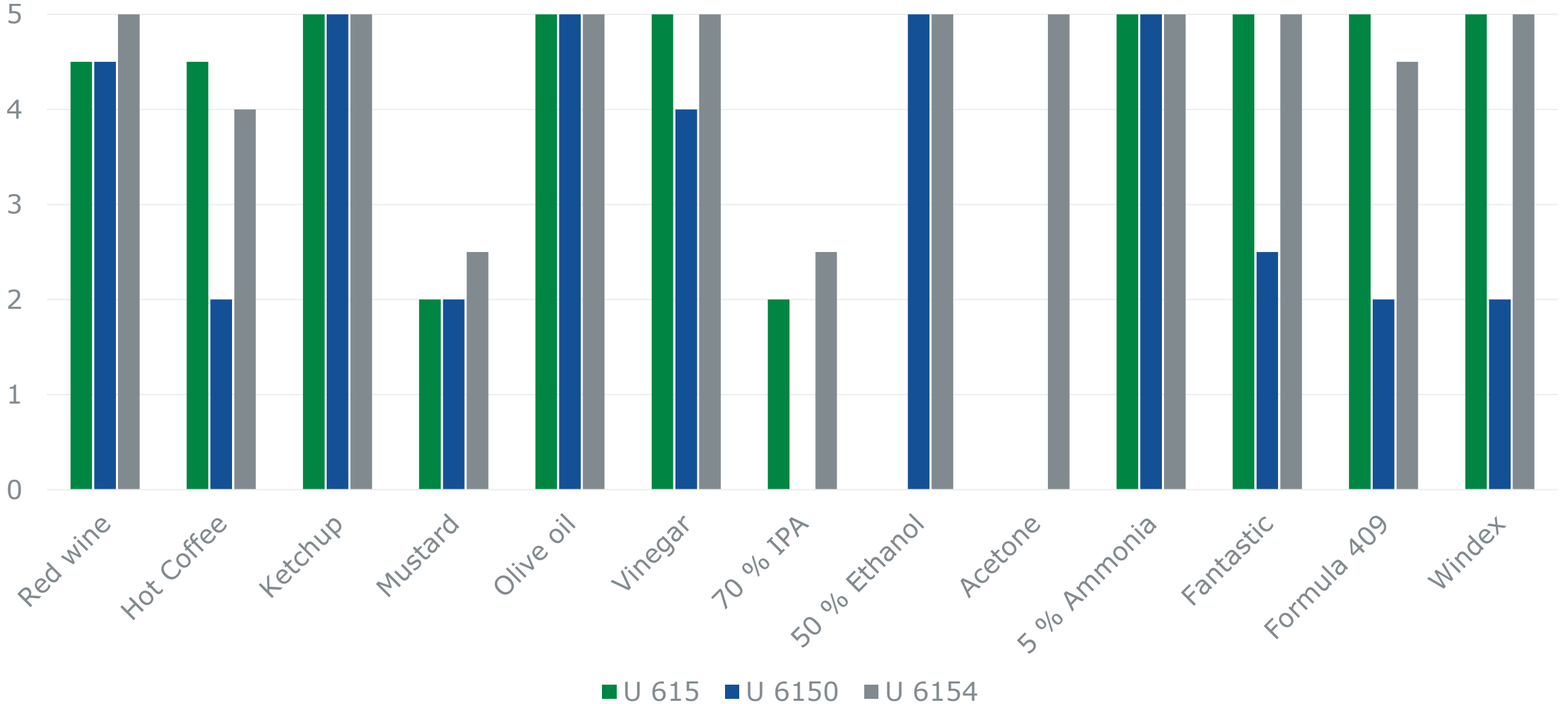
## Block Resistance (50°C)



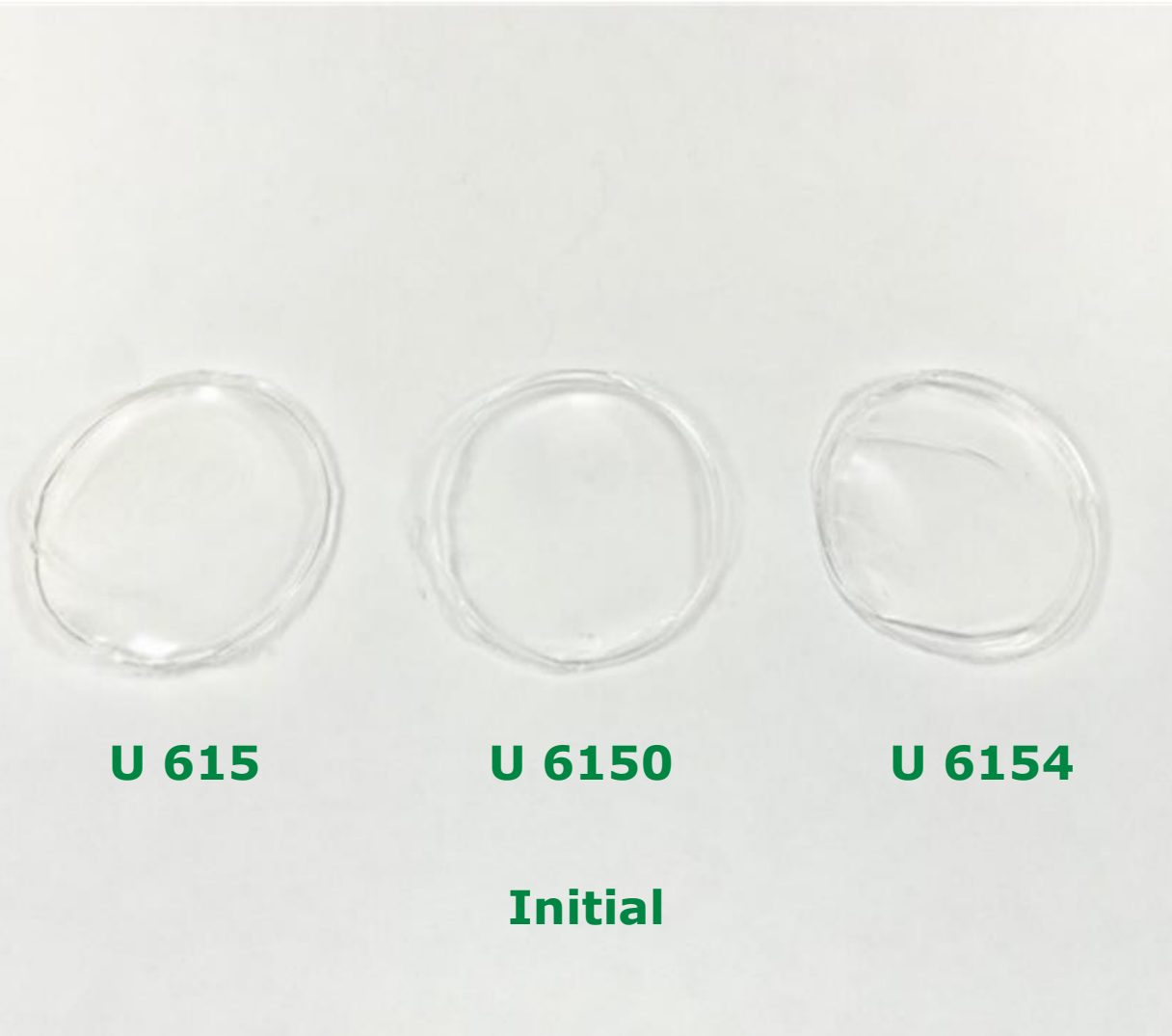




# Chemical resistance (1h spot test)



 **Hydrolysis Resistance (65°C, 95% RH)**





# Exterior Stains

Ingredients	Quantity	Gal
<b>Alberdingk® U 6154</b>	<b>600.00</b>	<b>70.18</b>
BYK-024	2.42	0.29
BYK-1724	6.45	0.77
<i>Premix next 3 items</i>		
DPM	20.00	2.52
Tinuvin 1130	20.15	2.06
Tinuvin 292	8.06	0.97
Water	125.00	14.98
CERAFLOUR-1000	8.06	0.77
AQUACER-513	21.76	2.61
BYK-346	2.42	0.29
Rheovis PU 1214	6.04	0.72
90R1662	8.06	0.73
90Y1489	16.12	1.37
Acticide MKW2	13.70	1.49
<b>Total</b>	<b>858.24</b>	<b>99.75</b>

**U 6150**

**U 6154**





## Oil Softening Resistance

7 types of oil/lotions applied for 16h and removed;

Dirt slurry applied overnight followed by a panel rinse

- Lanolin
- Lubriderm
- Eucerin
- Motor oil
- Mineral
- Vegetable oil
- Olive oil



After panel rinse

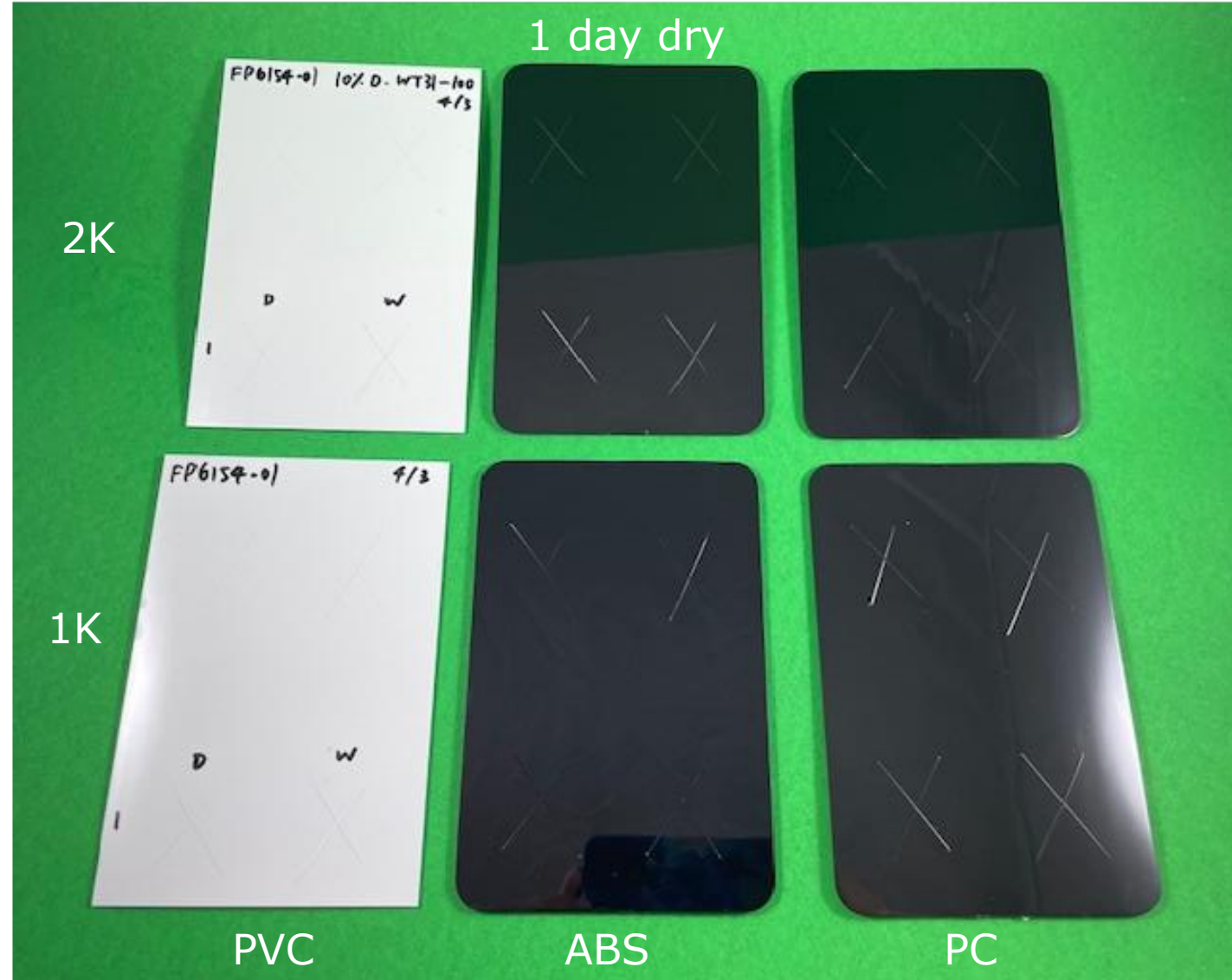


# Plastic Coatings (1 & 2K)

Plastic adhesion tested after 1 & 7 days dry, with and without iso crosslinker

All panels rated "5A"

Classification		Surface of "X" - Cut from which flaking/peeling has occurred
5A	No peeling or removal	None
4A	Trace peeling or removal along incisions or at their intersection	
3A	Jagged removal along incisions up to 1/16" on either side	
2A	Jagged removal along most of incisions up to 1/8" on either side	
1A	Removal from most of the area of the X under the tape	
0A	Removal beyond the area of the X	





## Conclusion

- U 6154 is a robust and versatile polycarbonate PUD with:
  - Excellent exterior durability
  - Excellent adhesion profile
  - Excellent hydrolysis resistance
  - Excellent hand fat resistance
- U 6154 can also be formulated with acrylic dispersions to offer a unique balance of properties.

**Disclaimer:**

The aforesaid information is based on our present state of knowledge and shall inform about our products and their application possibilities. It is not intended to assure certain characteristics of the products and their suitability for precise application fields. Products including "VP" in their label are trial products during test stage. For these products Alberdingk Boley is only able to provide preliminary characteristics without obligation. Please consider possible industrial property rights. Subject to change without prior notice. ALBERDINGK® and ALBODUR® are registered trademarks of ALBERDINGK BOLEY GmbH or an affiliate thereof in one or more, but not all, countries. Possible trademark rights of third-party products mentioned have to be observed.



Certified according to ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ILO-OSH 2001