

# APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **61**
- SRM **3.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **55 C**, Time **5 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **45 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (90.9%)	82 %	4
Grain	Weyermann - Carapils	0.5 kg (9.1%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	60 min	15.5 %
Whirlpool	Mosaic Cryo	25 g	15 min	21.3 %
Whirlpool	Idaho 7 Cryo	25 g	15 min	20.1 %
Dry Hop	Mosaic Cryo	70 g	4 day(s)	21.3 %
Dry Hop	Idaho 7 Cryo	70 g	4 day(s)	20.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lutra OYL-071	Ale	Dry	11 g	Omega
Blend TorbbedGarden	Ale	Slant	50 ml	---

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	11 g	Mash	60 min
Water Agent	Epsom	2 g	Mash	60 min
Water Agent	CaCl	3 g	Mash	60 min
Water Agent	Kwas mlekowy 80%	5 g	Mash	60 min
Water Agent	Enzym	2 g	Mash	60 min
Water Agent	Whirflocck	4 g	Boil	10 min

## Notes

- Profil wody (Chmielowy):Ca-98.7/Mg-9.1/Na-4/Cl-42.6/SO4-196.6/HCO3-41/  
2ml enzymu do zacierania,  
Kwas mlekowy do korekty pH zacieru (5.3) i pH brzeczki nastawnej (5.1)  
Whirflocck na ostatnie 10 minut gotowania, cała tabletk.  
*May 11, 2023, 9:52 PM*