

APA nr 21

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **28**
- SRM **16.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **3 %**
- Size with trub loss **42.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **50.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.25 liter(s) / kg**
- Mash size **30.2 liter(s)**
- Total mash volume **39.5 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **30.2 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **29.2 liter(s)** of **76C** water or to achieve **50.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	7 kg (75.3%)	85 %	7
Grain	diastatyczny	1 kg (10.8%)	80 %	3
Grain	Caraaroma	1 kg (10.8%)	78 %	400
Grain	zakwaszający	0.3 kg (3.2%)	1 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	40 min	10 %
Aroma (end of boil)	Citra	20 g	0 min	12 %
Aroma (end of boil)	Centennial	10 g	0 min	10.5 %
Aroma (end of boil)	Chinook	10 g	0 min	13 %
Boil	Centennial	10 g	15 min	10.5 %
Boil	Chinook	10 g	15 min	13 %
Dry Hop	Citra	50 g	3 day(s)	12 %
Dry Hop	Centennial	50 g	3 day(s)	10.5 %
Dry Hop	Chinook	50 g	3 day(s)	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	400 ml	---

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	10 g	Mash	60 min