

APA v20 #126

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **35**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **16.8 liter(s)**
- Trub loss **2.5 %**
- Size with trub loss **17.6 liter(s)**
- Boil time **85 min**
- Evaporation rate **26.9 %/h**
- Boil size **24.7 liter(s)**

Mash information

- Mash efficiency **75.1 %**
- Liquor-to-grist ratio **3.85 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **24.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzneński - viking	1 kg (25.6%)	80 %	3.6
Grain	pale ale - viking	2 kg (51.3%)	80 %	5.5
Grain	płatki owsiane	0.4 kg (10.3%)	83 %	3
Grain	pszeniczny - besmalz	0.3 kg (7.7%)	82 %	5
Grain	Cookie - viking	0.2 kg (5.1%)	72 %	50

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	6 g	60 min	14.7 %
Aroma (end of boil)	Simcoe	20 g	5 min	12.9 %
Aroma (end of boil)	Sabro	30 g	5 min	14.8 %
Aroma (end of boil)	Michigan Copper	50 g	1 min	8 %
Dry Hop	Michigan Copper	50 g	2 day(s)	8 %
Dry Hop	Centennial	40 g	2 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Liquid	40 ml	Fermentum Mobile
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Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	2.5 g	Mash	---
Water Agent	kwas mlekowy 80% [ml]	4.5 g	Mash	---
Water Agent	chlorek wapnia [ml]	0 g	Mash	---
Water Agent	epsom	0.5 g	Mash	---
Water Agent	mech irlandzki	3 g	Boil	10 min
Water Agent	kwask askorbinowy	3 g	Bottling	---