

## APA v22 #131

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **30**
- SRM **4.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **7 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **7 min** at **77C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzneński - viking	3 kg (57.7%)	80 %	3.6
Grain	pale ale - viking	1 kg (19.2%)	80 %	5.5
Grain	pszeniczny - bestmalz	0.5 kg (9.6%)	83 %	5
Grain	wiedeński - viking	0.4 kg (7.7%)	78 %	9
Grain	karmelowy 30 - viking	0.3 kg (5.8%)	73 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	9 g	60 min	14.7 %
Aroma (end of boil)	Columbus	20 g	5 min	15.8 %
Aroma (end of boil)	Simcoe	20 g	5 min	12.9 %
Aroma (end of boil)	Falconer's Flight	50 g	1 min	10.3 %
Dry Hop	Falconer's Flight	50 g	1 day(s)	10.3 %
Dry Hop	Hallertau Blanc	30 g	1 day(s)	5.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Slant	150 ml	Fermentum Mobile
gęstwa 30-dniowa				

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	2.5 g	Mash	---
Water Agent	kwask mlekowy 80% [ml]	4.65 g	Mash	---
Water Agent	chlerek wapnia [ml]	0 g	Mash	---
Water Agent	węglan wapnia/kreda	0 g	Mash	---
Water Agent	sól epsom	0.5 g	Mash	---
Fining	irish moss	3 g	Boil	10 min
zastanowić się czy dodawać?				
Water Agent	kwask askorbinowy	3.6 g	Bottling	---