

## APA SimCitMos #45

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **46**
- SRM **5.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.4 liter(s)**

### Mash information

- Mash efficiency **87.4 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **27.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking - Pale Ale	4.1 kg (82%)	79 %	6
Grain	Bestmalz - pszeniczny	0.4 kg (8%)	82 %	4
Grain	Chateau - Abbey	0.3 kg (6%)	78 %	45
Grain	Viking - Rye Malt	0.2 kg (4%)	81 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	6 g	60 min	15.5 %
Aroma (end of boil)	Mosaic	9 g	20 min	12 %
Aroma (end of boil)	Citra	9 g	20 min	13.5 %
Aroma (end of boil)	Simcoe	9 g	20 min	13.1 %
Aroma (end of boil)	Mosaic	16 g	7 min	12 %
Aroma (end of boil)	Citra	16 g	7 min	13.5 %
Aroma (end of boil)	Simcoe	16 g	7 min	13.1 %
Dry Hop	Mosaic	40 g	4 day(s)	12 %
Dry Hop	Citra	40 g	4 day(s)	13.5 %

Dry Hop	Simcoe	40 g	4 day(s)	13.1 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	120 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Water Agent	kwas mlekowy 80% [ml]	4.98 g	Mash	---
Water Agent	gips piwowarski	4 g	Mash	---
Water Agent	chlorek wapnia [ml]	1.7 g	Mash	---
Fining	mech irlandzki	3 g	Boil	7 min
Water Agent	sól epsom	2 g	Mash	---

## Notes

- chmiele 20" i 7" dodane na whirlpool (98C-72C), więc realne IBU mniejsze ok 40-45  
*May 25, 2017, 12:40 PM*