

## Sour PA

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **26**
- SRM **3.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **23.6 liter(s)**
- Total mash volume **28.9 liter(s)**

### Steps

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

### Mash step by step

- Heat up **23.6 liter(s)** of strike water to **71.1C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.5 kg (85.7%)	81 %	4
Grain	Pszeniczny	0.5 kg (9.5%)	85 %	4
Grain	Cara Blonde - Castle Malting	0.25 kg (4.8%)	78 %	20

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	30 g	60 min	7.2 %
Aroma (end of boil)	Cascade	20 g	10 min	7.2 %
Aroma (end of boil)	Cascade	10 g	0 min	7.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Philly Sour	Ale	Dry	11 g	Lallemand

### Notes

- zadane bez uwadniania. pH końcowe po fermentacji 3,2. Flokulacja średnia, średnia klarowność piwa.  
*Mar 18, 2022, 10:01 AM*