

## Początek sezonu

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **40**
- SRM **6**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.4 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **19.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **32.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (78.1%)	85 %	6
Grain	Weyermann pszeniczny jasny	0.6 kg (9.4%)	80 %	4
Grain	Carahell	0.4 kg (6.3%)	77 %	25
Grain	Weyermann - Carared	0.4 kg (6.3%)	75 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Cascade PL	20 g	25 min	4.8 %
Boil	Sybilla	45 g	5 min	3 %
Aroma (end of boil)	sybilla	45 g	1 min	3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.9 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	5 g	Boil	15 min

### Notes

- Cascade szyszka wysuszone. Z własnej uprawy (jednoroczny krzak)  
Sybilla szyszka świeża z własnej uprawy. Ogólnie Sybilli jest 6 razy więcej ok 2x 280g  
*Aug 30, 2023, 9:10 PM*