

## Modern Bitter

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **47**
- SRM **4.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **26.7 liter(s)**

### Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.8 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **75.6 C**, Time **0 min**

### Mash step by step

- Heat up **13.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **0 min** at **75.6C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.3 kg (51.7%)	80 %	4
Grain	Strzegom Wiedeński	1.6 kg (36%)	79 %	10
Grain	Karamel Pils Steinbach	0.55 kg (12.4%)	79 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	25 g	60 min	12 %
Boil	Cascade	20 g	30 min	6 %
Boil	Cascade	30 g	5 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

### Notes

- Link do oryginalnej receptury  
<https://drive.google.com/file/d/1tXUduJK-qelGMkIRZSo-BBpuz9QRaejF/view?usp=sharing>

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

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