

## [17] ⊥ Bitwa o Anglię #IV

- Gravity **11.4 BLG**
- ABV ---
- IBU **37**
- SRM **8.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **34.5 liter(s)**

### Mash information

- Mash efficiency **64.4 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **26.9 liter(s)**

### Steps

- Temp **51 C**, Time **10 min**
- Temp **67.5 C**, Time **60 min**

### Mash step by step

- Heat up **20.5 liter(s)** of strike water to **55.8C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **60 min** at **67.5C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	5.7 kg (89.1%)	80 %	8
Grain	Carahell	0.7 kg (10.9%)	77 %	26

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Kent Goldings	23 g	60 min	5.5 %
Aroma (end of boil)	Sovereign	23 g	15 min	6.1 %
Aroma (end of boil)	Marynka	40 g	15 min	9.5 %
Dry Hop	Citra	25 g	3 day(s)	12 %
Dry Hop	Cascade	25 g	3 day(s)	8.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen - starter	Ale	Liquid	1700 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech	10 g	Boil	15 min