

## [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 |