

American Stout

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **54**
- SRM **37.1**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **11.2 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **6 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|-----|
| Grain | Castle Pale Ale | 1.5 kg (47%) | 80 % | 8 |
| Grain | Strzegom Monachijski typ II | 0.5 kg (15.7%) | 79 % | 22 |
| Grain | Żytni | 0.5 kg (15.7%) | 85 % | 8 |
| Grain | Słód Caramunich Typ II Weyermann | 0.2 kg (6.3%) | 73 % | 120 |
| Grain | Fawcett - Pale Chocolate | 0.1 kg (3.1%) | 71 % | 600 |
| Grain | Weyermann - Dehusked Carafa II | 0.1 kg (3.1%) | 70 % | 837 |
| Grain | Carafa | 0.14 kg (4.4%) | 70 % | 664 |
| Grain | Jęczmień palony | 0.15 kg (4.7%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Chinook PL | 15 g | 60 min | 10 % |
| Aroma (end of boil) | Citra | 10 g | 10 min | 13.5 % |
| Aroma (end of boil) | Chinook PL | 10 g | 10 min | 10 % |
| Aroma (end of boil) | Citra | 10 g | 5 min | 13.5 % |

| | | | | |
|---------------------|--------|------|-------|--------|
| Aroma (end of boil) | Mosaic | 10 g | 5 min | 12 % |
| Whirlpool | Mosaic | 40 g | 0 min | 12 % |
| Whirlpool | Citra | 40 g | 0 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------------------|------|--------|---------|------------------|
| FM13 Irlandzkie Ciemności - starter | Ale | Liquid | 1000 ml | Fermentum Mobile |