

## American Porter

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **44**
- SRM **33.1**
- Style **Robust Porter**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.55 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **27.7 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **19.9 liter(s)** of strike water to **73.8C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount         | Yield | EBC  |
|-------|----------------------------------|----------------|-------|------|
| Grain | Strzegom Wiedeński               | 3 kg (38.5%)   | 79 %  | 10   |
| Grain | Strzegom Pale Ale                | 3 kg (38.5%)   | 79 %  | 6    |
| Grain | Caramunich® typ I                | 1 kg (12.8%)   | 73 %  | 90   |
| Grain | Strzegom Monachijski typ II      | 0.2 kg (2.6%)  | 79 %  | 15   |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.4 kg (5.1%)  | 73 %  | 1001 |
| Grain | Jęczmień palony                  | 0.19 kg (2.4%) | 55 %  | 1100 |

### Hops

| Use for             | Name    | Amount | Time     | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil                | Simcoe  | 30 g   | 60 min   | 12.1 %     |
| Boil                | Cluster | 25 g   | 30 min   | 8.6 %      |
| Aroma (end of boil) | Cluster | 25 g   | 0 min    | 8.6 %      |
| Dry Hop             | Simcoe  | 30 g   | 7 day(s) | 12.1 %     |
| Dry Hop             | Cluster | 20 g   | 7 day(s) | 8.6 %      |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|             |     |     |        |        |
|-------------|-----|-----|--------|--------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |
|-------------|-----|-----|--------|--------|