

#20 American Porter

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **39**
- SRM **25.7**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **12.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Sparge using **9.3 liter(s)** of **76C** water or to achieve **17.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--|----------------|--------|------|
| Grain | Viking Pale Ale malt | 3.5 kg (83.3%) | 80 % | 5 |
| Grain | Special B Malt | 0.2 kg (4.8%) | 65.2 % | 315 |
| Grain | Jęczmień palony | 0.1 kg (2.4%) | 55 % | 985 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.1 kg (2.4%) | 73 % | 1001 |
| Grain | Płatki owsiane | 0.2 kg (4.8%) | 85 % | 3 |
| Grain | Caraaroma | 0.1 kg (2.4%) | 78 % | 400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Challenger | 30 g | 60 min | 5.1 % |
| Boil | Fuggles | 20 g | 60 min | 4.5 % |
| Aroma (end of boil) | Fuggles | 10 g | 10 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------------|------|-------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Slant | 100 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------|--------|---------|--------|
| Fining | whirfloc | 0.5 g | Boil | 15 min |