

Czacade

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **27**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **62 C**, Time **10 min**
- Temp **45 C**, Time **72 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **72 min** at **45C**
- Keep mash **10 min** at **62C**
- Keep mash **10 min** at **75C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|------------|-------|-----|
| Grain | Pilzneński | 4 kg (80%) | 81 % | 4 |
| Grain | Pale Malt (2 Row) US | 1 kg (20%) | 79 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Cascade | 40 g | 30 min | 7 % |
| Aroma (end of boil) | Cascade | 10 g | 5 min | 7 % |
| Aroma (end of boil) | Lublin (Lubelski) | 20 g | 5 min | 4 % |
| Dry Hop | Cascade | 10 g | 3 day(s) | 7 % |