

Pale Ale 20L

- Gravity **11.4 BLG**
- ABV ---
- IBU **37**
- SRM **8.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **35.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **22.9 liter(s)** of **76C** water or to achieve **35.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale | 3 kg (57.7%) | 79 % | 6 |
| Grain | Strzegom Wiedeński | 2 kg (38.5%) | 79 % | 10 |
| Grain | Weyermann - Caramel Rye Malt | 0.2 kg (3.8%) | 74 % | 175 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil | Citra | 10 g | 60 min | 13.5 % |
| Boil | Citra | 15 g | 25 min | 13.5 % |
| Boil | Citra | 15 g | 10 min | 13.5 % |
| Boil | Citra | 15 g | 5 min | 13.5 % |
| Whirlpool | Citra | 15 g | 0 min | 12 % |
| Dry Hop | Amarillo | 30 g | 4 day(s) | 9.5 % |
| Dry Hop | Citra | 40 g | 4 day(s) | 12 % |
| Whirlpool | Amarillo | 10 g | 0 min | 9.5 % |

Yeasts

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

| | | | | |
|--------------|-----|-----|------|-----------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |
|--------------|-----|-----|------|-----------|