

## Pale Ale 20L

- Gravity **12.6 BLG**
- ABV ---
- IBU **46**
- SRM **6.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **37.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **27.5 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**

### Mash step by step

- Heat up **22 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **37.4 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount        | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale   | 5 kg (90.9%)  | 79 %  | 6   |
| Grain | Strzegom Karmel 150 | 0.1 kg (1.8%) | 75 %  | 150 |
| Grain | Wheat, Flaked       | 0.4 kg (7.3%) | 77 %  | 4   |

### Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil                | Citra    | 10 g   | 60 min   | 13.5 %     |
| Boil                | Citra    | 10 g   | 25 min   | 13.5 %     |
| Boil                | Simcoe   | 10 g   | 25 min   | 13 %       |
| Boil                | Citra    | 10 g   | 10 min   | 13.5 %     |
| Boil                | Simcoe   | 10 g   | 10 min   | 13 %       |
| Aroma (end of boil) | Amarillo | 15 g   | 5 min    | 9.5 %      |
| Aroma (end of boil) | Citra    | 15 g   | 5 min    | 13.5 %     |
| Whirlpool           | Simcoe   | 10 g   | 0 min    | 13 %       |
| Whirlpool           | Amarillo | 15 g   | 0 min    | 9.5 %      |
| Whirlpool           | Citra    | 10 g   | 0 min    | 12 %       |
| Dry Hop             | Amarillo | 30 g   | 3 day(s) | 9.5 %      |
| Dry Hop             | Citra    | 30 g   | ---      | 12 %       |

**Yeasts**

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 300 ml | Fermentis  |