

Perle Pale Ale

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **30**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **28.1 liter(s)**

Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

Steps

- Temp **51 C**, Time **10 min**
- Temp **64 C**, Time **10 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **15.4 liter(s)** of strike water to **55.4C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **10 min** at **64C**
- Keep mash **60 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|-----------------|-------|-----|
| Grain | MEP@Lager | 4.15 kg (94.3%) | 82 % | 6 |
| Grain | Strzegom Karmel 30 | 0.25 kg (5.7%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------|--------|--------|------------|
| Boil | Perle | 20 g | 60 min | 6 % |
| Boil | Perle | 20 g | 10 min | 6 % |
| Boil | Perle | 20 g | 15 min | 6 % |
| Boil | Perle | 20 g | 5 min | 6 % |
| Whirlpool | Perle | 30 g | 20 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 120 ml | Fermentis |