

# Lubartowskie Pale Ale

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **34**
- SRM **6.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **1 %**
- Size with trub loss **25.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **27.5 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **21.4 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield  | EBC |
|-------|---------------------|----------------|--------|-----|
| Grain | Strzegom Pale Ale   | 2 kg (32.8%)   | 79 %   | 6   |
| Grain | Strzegom Wiedeński  | 0.5 kg (8.2%)  | 79 %   | 10  |
| Grain | Strzegom Karmel 150 | 0.2 kg (3.3%)  | 75 %   | 150 |
| Grain | Żytni               | 1.5 kg (24.6%) | 85 %   | 8   |
| Grain | Strzegom Pszeniczny | 1.5 kg (24.6%) | 81 %   | 6   |
| Grain | Rye, Flaked         | 0.4 kg (6.6%)  | 78.3 % | 4   |

## Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Marynka  | 30 g   | 45 min | 10 %       |
| Boil                | Oktawia  | 10 g   | 30 min | 7.1 %      |
| Aroma (end of boil) | Puławski | 10 g   | 10 min | 8.5 %      |
| Aroma (end of boil) | Oktawia  | 10 g   | 5 min  | 7.1 %      |
| Aroma (end of boil) | Puławski | 10 g   | 5 min  | 8.5 %      |
| Whirlpool           | Oktawia  | 10 g   | 0 min  | 7.1 %      |
| Whirlpool           | Puławski | 10 g   | 0 min  | 12 %       |

|         |          |      |          |       |
|---------|----------|------|----------|-------|
| Dry Hop | Oktawia  | 30 g | 4 day(s) | 7.1 % |
| Dry Hop | Puławski | 30 g | 4 day(s) | 12 %  |

## Yeasts

| Name                 | Type | Form   | Amount | Laboratory       |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Liquid | 100 ml | Fermentum Mobile |