

## Dziesięć i pół

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **19**
- SRM **3.5**
- Style **Lite American Lager**

### 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 **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **71 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

### Steps

- Temp **63 C**, Time **20 min**
- Temp **69 C**, Time **40 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **69C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Pilzneński           | 3.5 kg (77.8%) | 81 %  | 4   |
| Grain | Strzegom Wiedeński   | 0.5 kg (11.1%) | 79 %  | 10  |
| Grain | Weyermann - Carapils | 0.5 kg (11.1%) | 78 %  | 4   |

### Hops

| Use for             | Name      | Amount | Time   | Alpha acid |
|---------------------|-----------|--------|--------|------------|
| Boil                | Marynka   | 11 g   | 60 min | 10 %       |
| Aroma (end of boil) | Mosaic    | 8 g    | 2 min  | 10 %       |
| Boil                | Hallertau | 10 g   | 60 min | 4.5 %      |
| Aroma (end of boil) | Sybilla   | 30 g   | 2 min  | 3.5 %      |

### Yeasts

| Name                      | Type  | Form   | Amount  | Laboratory  |
|---------------------------|-------|--------|---------|-------------|
| Wyeast - California Lager | Lager | Liquid | 1000 ml | Wyeast Labs |