

## LEM | Brown Ale (by Piwny Kraft)

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **26**
- SRM **14.5**
- Style **Northern English Brown Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.4 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **14.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt       | 3.5 kg (72.2%) | 80 %  | 5   |
| Grain | Weyermann - Carared        | 0.5 kg (10.3%) | 75 %  | 45  |
| Grain | Strzegom Monachijski typ I | 0.4 kg (8.2%)  | 79 %  | 16  |
| Grain | Strzegom Wiedeński         | 0.25 kg (5.2%) | 79 %  | 10  |
| Grain | Weyermann - Carafa I       | 0.2 kg (4.1%)  | 70 %  | 690 |

Dodawany na ostatnie 10 min zacierania

### Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Challenger | 25 g   | 60 min | 7 %        |
| Boil    | Palisade   | 20 g   | 10 min | 7.5 %      |

### Yeasts

| Name                                 | Type | Form | Amount | Laboratory      |
|--------------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M36 Liberty Bell Ale | Ale  | Dry  | 10 g   | Mangrove Jack's |

## Notes

- Zacieranie w 15 litrach w 68C - 1h.  
Po godzinie dodanie siodu Carafa I Special.  
Podniesienie temperatury do 72C - 10 min.  
Podniesienie temperatury do 76C - maschout.  
Filtracja i wysładzanie do 22L.

Fermentacja w temp. 17-19C - 7 dni burzliwa + 7 dni cicha  
*May 16, 2019, 9:00 PM*