

## 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 sodu Carafa I Special.  
Podniesienie temperatury do 72C - 10 min.  
Podniesienie temperatury do 76C - mashout.  
Filtracja i wysadzanie do 22L.

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