

### 3 - DZIEWCZYNY LUBIĄ BRAŹ

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **30**
- 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 **65 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

#### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

#### Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **0 min**

#### Mash step by step

- Heat up **12 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

#### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.4 kg (85%)	85 %	7
Grain	Carafa II	0.2 kg (5%)	70 %	812
Grain	Carahell	0.4 kg (10%)	77 %	26

#### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	15 g	60 min	7 %
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Aroma (end of boil)	Warrior	30 g	5 min	15.5 %

#### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale