

Las tropikalny

- Gravity **17.5 BLG**
- ABV ---
- IBU **46**
- SRM **58.8**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **17.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4.1 kg (67.2%)	85 %	7
Grain	Strzegom Karmel 30	0.3 kg (4.9%)	75 %	30
Grain	Caraaroma	0.1 kg (1.6%)	78 %	400
Grain	Rye, Flaked	0.2 kg (3.3%)	78.3 %	4
Grain	Oats, Flaked	0.4 kg (6.6%)	80 %	2
Grain	Strzegom Jęczmień palony	0.2 kg (3.3%)	55 %	1100
Grain	Chocolate Malt (UK)	0.3 kg (4.9%)	73 %	1200
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (3.3%)	73 %	1000
Sugar	Milk Sugar (Lactose)	0.3 kg (4.9%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	13.5 %
Boil	Marynka	35 g	60 min	9.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Irish Ale	Ale	Slant	200 ml	Wyeast Labs

Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	5 g	Boil	10 min
Flavor	Laktoza	350 g	Boil	10 min
Water Agent	kreda	3 g	Mash	60 min