

Koziółek matólek

- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **15**
- SRM **21.9**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **24.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.5 liter(s)**
- Total mash volume **31.4 liter(s)**

Steps

- Temp **63 C**, Time **10 min**
- Temp **72 C**, Time **60 min**

Mash step by step

- Heat up **23.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **10 min** at **63C**
- Keep mash **60 min** at **72C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Wędzony bukiem	5 kg (63.8%)	82 %	10
Grain	Monachijski	2 kg (25.5%)	80 %	16
Grain	Strzegom Karmel 150	0.6 kg (7.7%)	75 %	150
Grain	Strzegom Karmel 600	0.2 kg (2.6%)	68 %	601
Grain	Strzegom Czekoladowy 1200	0.04 kg (0.5%)	68 %	1202

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	20 g	70 min	5.5 %
Boil	Tradition	20 g	20 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Dry	11 g	Mangrove Jack's