

## Podłaźniczka - Xmas Ale (FES z Przyprawami)

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **36**
- SRM **35**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Colorado Pale Base Malt	6 kg (85.7%)	80 %	6
Grain	Caramel/Crystal Malt - 120L	0.5 kg (7.1%)	72 %	236
Grain	Carafa III	0.25 kg (3.6%)	70 %	1400
Grain	Briess - Chocolate Malt	0.25 kg (3.6%)	75 %	1000

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka (Polish Hops)	50 g	50 min	8.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	1500 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
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Spice	Suszone Skórki Pomarańczy	50 g	Boil	5 min
Spice	Ziarna Tonki	50 g	Boil	5 min
Spice	Cynamon	50 g	Boil	5 min
Spice	Goździk	50 g	Boil	5 min
Spice	Wanlia	50 g	Boil	5 min
Flavor	Suszona Śliwka	100 g	Boil	5 min