

# Urodzinowe- ciemne

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **40**
- SRM **50.6**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **8 %**
- Size with trub loss **14 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **19.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **27.7 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **21.8 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Sparge using **3.2 liter(s)** of **76C** water or to achieve **19.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	2 kg (31.2%)	79 %	22
Grain	Viking Pale Ale malt	2 kg (31.2%)	80 %	5
Grain	płatki jęczmienne	0.4 kg (6.2%)	60 %	4
Grain	Castle Cafe	0.5 kg (7.8%)	75.5 %	480
Grain	Strzegom Karmel 600	0.2 kg (3.1%)	68 %	601
Grain	Jęczmień palony	0.2 kg (3.1%)	55 %	985
Sugar	Milk Sugar (Lactose)	0.5 kg (7.8%)	76.1 %	0
Grain	Carafa III	0.2 kg (3.1%)	70 %	1400
Grain	Płatki owsiane	0.4 kg (6.2%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	40 min	13.5 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Flavor	Kawa- zaparzona do refermentacji	150 g	Bottling	0 min

## Notes

- Wyszło bardzo dobre, słodkie, treściwe, piana średnia -> słaba  
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