

# Co ma piernik do wiatraka

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **20**
- SRM **31.8**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- 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 **3.5 liter(s) / kg**
- Mash size **24.7 liter(s)**
- Total mash volume **31.7 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **24.7 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2.5 kg (35.5%)	79 %	6
Grain	Strzegom Monachijski typ I	2.8 kg (39.7%)	79 %	16
Grain	Strzegom Czekoladowy 400	0.25 kg (3.5%)	68 %	400
Grain	Abbey Castle	0.2 kg (2.8%)	80 %	45
Grain	Strzegom Czekoladowy 1200	0.4 kg (5.7%)	68 %	1202
Grain	Płatki owsiane	0.4 kg (5.7%)	60 %	3
Grain	Strzegom Pszeniczny	0.5 kg (7.1%)	81 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Spice	Cynamon 3szt	10 g	Boil	15 min
Spice	Imbir	9 g	Boil	15 min
Spice	Kardamon	12 g	Boil	15 min
Spice	Goździki	12 g	Boil	15 min
Spice	Gałka muskatołowa	10 g	Boil	15 min
Spice	Skórka z 5 pomarańczy	150 g	Boil	15 min

## Notes

- Czekoladowy 400 po 40 min zacierania w 64st  
Czekoladowy 1200 po 20 min zacierania w 72 st  
*Oct 14, 2018, 12:55 PM*