

Oscypek

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **26**
- SRM **20.8**
- Style **Munich Dunkel**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **50 C**, Time **5 min**
- Temp **63 C**, Time **9 min**
- Temp **64 C**, Time **9 min**
- Temp **65 C**, Time **10 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15.3 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **5 min** at **50C**
- Keep mash **9 min** at **63C**
- Keep mash **9 min** at **64C**
- Keep mash **10 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|---------------|-------|------|
| Grain | Ireks Smoked Malt | 2 kg (39.2%) | 77 % | 4 |
| Grain | Ireks Munich Malt | 2 kg (39.2%) | 80 % | 20 |
| Grain | Ireks Crystal Oak | 0.4 kg (7.8%) | 70 % | 30 |
| Grain | Ireks Crystal Palisander | 0.4 kg (7.8%) | 65 % | 130 |
| Grain | Strzegom Karmel 600 | 0.2 kg (3.9%) | 68 % | 601 |
| Grain | Carafa III | 0.1 kg (2%) | 70 % | 1034 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| First Wort | lunga | 10 g | 70 min | 11 % |
| Aroma (end of boil) | lunga | 15 g | 20 min | 11 % |
| Whirlpool | Lublin (Lubelski) | 20 g | 20 min | 2.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------|-------|-------|--------|------------|
| Namysłów | Lager | Slant | 20 ml | Namysłów |