

Dunkel

Description: A dark brown, bottom fermented beer, malty without being sweet.

Original Gravity	1045 or 11.2 Brix
Alcohol by Volume	4.8%
Colour	135 EBC or 51 ASBC
Bitterness	15 EBU

Malts:

Pilsner Malt	75%
Munich Malt (10-16 EBC or 6-8 ASBC)	8.5%
Caramalt (160-180 EBC or 70-80 ASBC)	10.5%
Black Malt (1000 EBC or 375 ASBC)	6%

Mashing:

Mash-in at 45C and hold for	20 minutes
Raise to 52C and hold for	20 minutes
Raise to 65C and hold for	20 minutes
Raise to 69C and hold for	20 minutes
Sparge or lauter at 75C	

Hops and Boiling:

All bitterness is derived from the main hop added at the start of boil – hops to use Saaz or Hallertau

Late hops added at the end of the boil 50 grams/HI Saaz

Total boil time 90 minutes

Fermentation and Maturation:

Cool the wort to 12C and pitch with a suitable Lager yeast. Fermentation should be approximately 8 to 10 days, with a maximum fermentation temperature of 13C. When the gravity reaches 1008 or 2.0 Brix cool the beer. Allow the beer to mature for at least 28 days at 0 to 2C.