

LE CPM S45VN EST UN INOX MARTENSITIQUE FABRIQUÉ PAR MÉTALLURGIE DES POUDRES, ÉTUDIÉ POUR OFFRIR UNE RÉSISTANCE À LA CORROSION ET À L'USURE SUPÉRIEURE AU CPM S35VN. L'UTILISATION DE NIOBIUM ET D'AZOTE PERMET D'OBTENIR UNE NUANCE CONJUGUANT TENUE DU TRANCHANT, RÉSISTANCE ET DURETÉ, IDÉALE POUR LA COUTELLERIE.

ÉTAT DE LIVRAISON

- Recuit
- Laminé à chaud

COMPOSITION

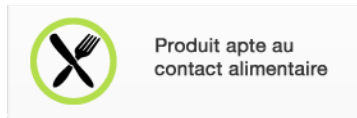
C	Cr	V	Mo	Nb	N
1.48%	16%	3%	2%	0.5%	0.15%

CARACTÉRISTIQUES

- Excellente tenue du tranchant
- Excellente résistance à la corrosion
- Hautes duretés
- Haute pureté
- Bonne machinabilité

EMPLOIS PRINCIPAUX

Tous types de couteaux, fixes, pliants, de cuisine...



	1900°F(1040°C)		1950°F(1040°C)		2000°F(1095°C)	
Tempering Temperature	Oil	Oil + Freeze Liquid N2	Oil HRC	Oil + Freeze Liquid N2	Oil	Oil + Freeze Liquid N2
As Quenched	62.6	63.0	63.5	63.8	63.3	64.6
400°F(200°C)	60.2	60.3	61.1	60.9	60.6	61.1
600°F(315°C)	59.3	59.3	59.5	59.7	58.5	60.0
750°F(400°C)	59.7	59.3	59.6	59.5	58.7	60.0
1000°F(540°C)	59.2	59.2	60.0	59.9	61.5	62.0

Results may vary with hardening method and section size. Salt or oil quenching will give maximum response. Vacuum or atmosphere cooling may result in up to 1-2 HRC points lower.

Minimum Time at Aust. Temp.	30 min	30 min	15 min
Minimum Number of Tempering	2	2	2

TRAITEMENT THERMIQUE

AUSTENITISATION : 1035-1095°C (1895-2003°F).

Nous recommandons une trempe à 1065°C (1950°F) pendant 15 à 30 minutes.

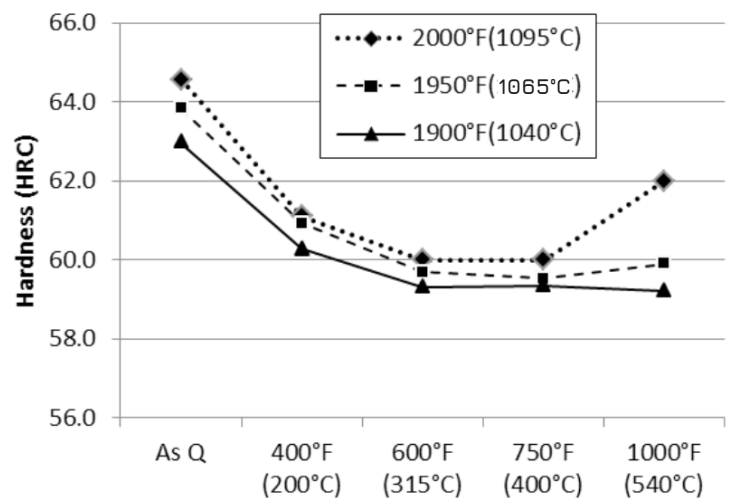
TREMPE : Refroidissement rapide, à l'air ou à l'huile.

REVENU : 2 x 2 heures entre 200 et 400°C (392°F-752°F)

DURETÉ : 59 - 61 HRC.

POUR TREMPER LE CPM S45VN, LA CRYO EST POSSIBLE POUR ATTEINDRE LES PLUS HAUTES DURETÉS PERMISES PAR LA NUANCE. ELLE DOIT ÊTRE SUIVIE D'AU MOINS 1 REVENU.

COURBE DE REVENU



SIÈGE SOCIAL

EUROTECHNI S.A.S
Agence de Racine
Z.A Racine
63650 La Monnerie-le-Montel

AGENCE DE NOGENT

EUROTECHNI S.A.S
Agence de Nogent
40, Rue du Guay
52800 Nogent

TEL : +33 (0)4 73 51 44 77

CPM S45VN IS A MARTENSITIC STAINLESS STEEL MANUFACTURED BY POWDER METALLURGY, DESIGNED TO OFFER SUPERIOR CORROSION AND WEAR RESISTANCE TO CPM S35VN. THE USE OF NIOBIUM AND NITROGEN ALLOWS TO OBTAIN A GRADE THAT COMBINES SHARPNESS, STRENGTH AND HARDNESS HARDNESS, IDEAL FOR CUTLERY.

STATE OF DELIVERY

- Annealed
- Hot rolled

ANALYSIS

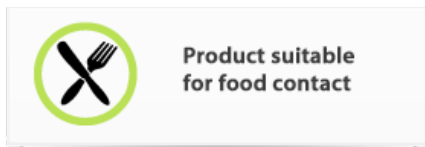
C	Cr	V	Mo	Nb	N
1.48%	16%	3%	2%	0.5%	0.15%

SPECIFICATIONS

- Excellent edge retention
- Excellent corrosion resistance
- High hardness
- High purity
- Good workability

MAIN USES

All type of knives : kitchen, fixed, folding knives...



Tempering Temperature	1900°F(1040°C)		1950°F(1065°C)		2000°F(1095°C)	
	Oil	Oil + Freeze Liquid N2	Oil HRC	Oil + Freeze Liquid N2	Oil	Oil + Freeze Liquid N2
As Quenched	62.6	63.0	63.5	63.8	63.3	64.6
400°F(200°C)	60.2	60.3	61.1	60.9	60.6	61.1
600°F(315°C)	59.3	59.3	59.5	59.7	58.5	60.0
750°F(400°C)	59.7	59.3	59.6	59.5	58.7	60.0
1000°F(540°C)	59.2	59.2	60.0	59.9	61.5	62.0

Results may vary with hardening method and section size. Salt or oil quenching will give maximum response. Vacuum or atmosphere cooling may result in up to 1-2 HRC points lower.

Minimum Time at Aust. Temp.	30 min	30 min	15 min
Minimum Number of Tempering	2	2	2

HEAT TREATMENT

AUSTENITIZATION : 1035-1095°C (1895-2003°F).

We recommend a heat treatment to 1065°C (1950°F) during 15-30 minutes.

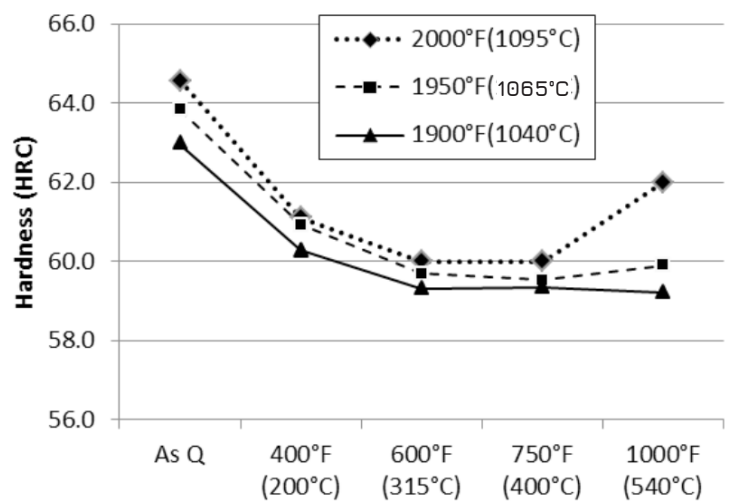
QUENCHING : Rapid cooling, oil or air.

TEMPERING : 2 x 2 hours between 200°C-400°C (392°F-752°F)

DURETÉ : 59 - 61 HRC.

DEEP FREEZING S45VN IS POSSIBLE TO ACHIEVE THE HIGHEST HARDNESSES ALLOWED BY THIS STEEL GRADE. IT SHOULD BE FOLLOWED BY AT LEAST ONE TEMPERING.

TEMPERING CHART



HEADQUARTERS

EUROTECHNI S.A.S
Thiers Agency
Z.A Racine
63650 La Monnerie-le-Montel

NOGENT AGENCY

EUROTECHNI S.A.S
Nogent Agency
40, Rue du Guay
52800 Nogent

TEL : +33 (0)4 73 51 44 77