The Federation of Motor Sports Clubs of India

Member of FIA FIM

2024

FMSCI LEISURE KARTING GUIDELINES

A7,Krishna Towers, 50 Sardar Patel Road, Chennai 600113
Phone : (91) (44) 22352673, 22355304
Email : admin@fmsci.in Web : www.fmsci.co.in
thefmsci @fmsci fmsci.official

CONTENTS

1. OBJECT AND PURPOSE OF THE RECOMMENDATIONS 4
2. SCOPE OF APPLICATION 4
3. DEFINITION 4
4. GENERAL RECOMMENDATIONS 5
5. INFRASTRUCTURE 6
5.1 Track 7
5.1.1 - General Recommendations for Tracks 7
5.1.2 - Specific Recommendations for Tracks 7
5.1.2.1 - Track design 7
5.1.2.3 - Track protections for leisure karts 7
5.1.2.4 - Track protections for the public 7
5.1.2.5 - Pit area 8
5.1.2.6 - Signalling system 8
5.2 - Buildings and Surroundings 8
5.2.1 - General Recommendations 8
5.2.2 - Specific Recommendations for leisure Indoor Karting activities 8
5.2.3 - Emergency equipment 8
6. LEISURE KARTS 8
6.1 - Minimum Safety Recommendations 9
6.2 - Protections of leisure karts against impacts 9
6.3 - Protection against hot and rotating elements 9
6.4 - Features to adapt the kart to the Driver's size 9
6.5 - Safety components 9
6.5.1 - Braking system 10
6.5.1.2 - Pedals 10
6.5.3 - Steering system 10
6.5.4 - Wheels and tyres 10
6.5.5 - Fuel system 10
6.6 - Maintenance and safety stickers 11
6.7 - Technical documentation – Maintenance stickers 11
7. DRIVERS 11

7.1 - Service Provider's Briefing to rent kart Drivers....11
7.2 - Age and size restrictions....11
7.3 Equipment – clothes....11
7.4 - Health and behaviour....12
7.5 - Communication....12
7.6 - Sanctions....12
8. MANAGEMENT....12
8.1 - Organisation of the service Provider....12
8.2 - Emergency situations....12
8.3 - Staff – qualification – training....12
8.4 - Maintenance of safety equipments (in addition to karts and tracks)....13
8.5 - Maintenance of leisure karts....13
8.6 - Maintenance of the track....13
8.7 - Daily pre-opening safety check....13
8.8 - Supervision of a session....13
8.9 - Records....14
8.10 - Insurance....14
APPENDIX 1 Recommendations for Drivers Age and Size Restrictions....15

1. OBJECT AND PURPOSE OF THE RECOMMENDATIONS

The object of these Recommendations is leisure Karting safety. Originally, Karting was focused on competition. The competition authorities at international (CIK-FIA) and FMSCI in India level have made (and still pursue) constant efforts to defi ne stringent safety rules in order to reach a high level of safety.

Over the years, Karting has also developed as a leisure activity so that, today, it encompasses a wide variety of applications, using leisure and competition karts: - competition, - training, - racing Drivers' schools. - rental by the ticket, - public, corporate and private events.

As leisure Karting keeps on developing and opens to new Drivers and countries, it is necessary to establish safety Recommendations in the field of leisure Karting.

Leisure Karting is an activity involving the liability of the service Provider. The purpose of these Recommendations is to help the service Provider prevent accidents and to ensure that his/her supervision complies with the safety of general products. Safety in Karting involves infrastructures (including circuits), karts, drivers, and the management of the operation. These Safety Recommendations are based on the experience of the CIK-FIA and of the FMSCI and taking into account the specific nature of leisure Karting activities. This document is only a Guideline for Leisure Karting. Neither the CIK FIA nor the FMSCI undertake any liability arising whatsoever in the application of this document.

2. SCOPE OF APPLICATION

These Recommendations apply to the determination of Indoor and Outdoor leisure Karting safety within the scope of application of the safety of general products. As such they are not a substitute for local legislations. These Recommendations do not apply to the control of other ancillary services provided by Karting circuits. Nor do they apply to Karting events that are outside the normal activities of the circuit or its business events organised as competitions under the control of the CIKFIA or of the FMSCI, where safety requirements specific to competition are applied.

3. DEFINITION

Leisure karting is an organised activity, offering leisure services in karting which : - exclude competitions organised by and under the responsibility of the CIK-FIA and/or FMSCI ensuring, through the granting of licences by an FMSCI or one of its affiliated members as defined in the International Sporting Code, compliance with the safety, sporting, disciplinary and technical rules of the CIK-FIA and/or FMSCI; - take place under the sole responsibility of the legal entity providing the services, and is managed by its personnel or personnel acting under its responsibility.

4. GENERAL RECOMMENDATIONS

In order to achieve a high level of safety, the service Provider should make sure that these Safety Recommendations are applied to: - infrastructures, - leisure karts, - personal protective equipment, - drivers, - management of operations. Leisure Karting covers a broad range of ages, sizes, weights and experience. It also offers a wide variety of activities such as rental by the ticket of short sessions, group and company events or endurance events. It is the responsibility of the service provider to make sure that the circuit, the leisure karts, the type of activity proposed and the management are adequate for the drivers and other persons involved. Karts with different speed/power characteristics should not be allowed on the track at the same time. The Recommendations contained in the table below, entitled “Age, Speed-Power, Track, Participants, Recommendations” should be followed.

Âge *Age*	Vitesse Nominale Maximum (km/h) *Nominal Maximum Speed (kph)*	Puissance (kW) *Power (kW)*	Piste indoor *Indoor Track*	Piste outdoor rapide *Fast Outdoor Track*	Autres pistes outdoor *Other Outdoor Tracks*	Nombre max. de karts en piste *Max Number of karts on track*	Commentaires *Comments*
Dès 6 ans *From 6*	<45	<3.5	Oui *Yes*	Oui *Yes*	Oui *Yes*	L/20 Max. 20	Piste spécifique recommandée *Specific track recommended*
Dès 12 ans *From 12*	<65	≤7	Oui *Yes*	Oui *Yes*	Oui *Yes*	L/20 Max. 30	Selon les conditions de piste; pneus à grip élevé non recommandés *According to track conditions; high grip tyres not recommended*
Dès 13 ans *From 13*	<90	≤7	Non *No*	Oui *Yes*	Oui *Yes*	L/20 Max. 30	Selon les conditions de piste; pneus à grip élevé non recommandés *According to track conditions; high grip tyres not recommended*
Dès 15 ans *From 15*	<110	≤21	Non *No*	Oui *Yes*	Non *No*	L/20 Max. 30	Selon conditions de piste; pneus à grip élevé non recommandés; carrosserie avec bonne capacité d'absorbtion d'énergie recommandée *According to track conditions; high grip tyres not recommended; bodywork with efficient energy absorption recommended*

Pistes rapides = pistes conçues pour la compétition selon selon les règles de la CIK-FIA ou de l'ASN (voir définitions)
L = longueur de la piste en mètres

Fast tracks = tracks designed according to the rules of the CIK-FIA or of the ASN for competition (see definitions)
L = length of the track in meters

5. INFRASTRUCTURE

The safety equipment of the infrastructure should take into account the safety of the Drivers, of the Public and of the Personnel of the service Provider.

5.1 Track

5.1.1 - General Recommendations for Tracks

The tracks used for leisure Karting activities should not constitute a danger to the health of customers using the services of the Karting circuit. The tracks should comply with local regulations or laws and be approved if required by these rules. Tracks where leisure karts run faster than 90 km/h should be designed accordingly. It is strongly recommended that such tracks should follow the design rules of tracks defined by the FMSCI or the CIK-FIA, and preferably approved by the FMSCI. In any case, every track should be approved by Experts accredited for this task.

5.1.2 - Specific Recommendations for Tracks

5.1.2.1 - Track design

Track design should be adequate for leisure Karting purposes, where inexperienced Drivers can be a danger for themselves and/or other Drivers. The design of the track should ensure good visibility. The track width should allow safe overtaking. It is recommended that the track width should be as a minimum 7 m for fast tracks, and 5 m for other tracks. The use of concrete or asphalt as track material is strongly recommended. The track surface should be even and free of holes. For outdoor tracks, water evacuation under and after rainy conditions should be foreseen: spots where water accumulates or stagnates should be avoided.

5.1.2.3 - Track protections for leisure karts

Track protections to protect Drivers should be installed: - where a risk of crash of a leisure kart against a fixed obstacle or a structure exists, - to establish a distance between 2 adjacent sections of the track so that inadvertent crossing from one lane to another is prevented. Track protections to protect Drivers should be of flexible material so that they absorb energy during the impact.

Track protections should be designed to be stable in crashes, i.e. they should be such that leisure karts cannot go under them or take off over them. Track protections should be attached together to prevent leisure karts from passing through them. The visibility of the track should be taken into account, from both the supervisor’s and driver’s point of view, when defining the height of the track protections.

5.1.2.4 - Track protections for the public

Track protections for the public should be installed: - to prevent leisure karts from reaching the public after a loss of control, - to keep the public far enough away from the driving areas. Track protections for the public should be of sufficient height and strength, depending on their location around the track and on the dimension of free space between track and protections.

5.1.2.5 - Pit area

The pit area should be located in such a way that it can only be entered using the entrance lane. The entrance to the pit area should be located in a zone where the speed on the track is low and where other Drivers on the track are not hindered. The exit from the pit area should be located in a zone where other Drivers on the track are not hindered. The pit lane entrance and exit should be clearly indicated and visible from the track. The width of the pit lane should be narrow enough to prevent overtaking in the pit lane. The pit lane entrance should be designed in such a way that speed cannot be too high in the pit lane.

5.1.2.6 - Signalling system

The track should have a signalling system which can be either signalling lights or a flag system. The signalling system should be clearly visible for Drivers on the track.

5.2 - Buildings and Surroundings

5.2.1 - General Recommendations

Buildings and surroundings have to comply with national legislations regarding matters such as general safety, fi re safety and environmental constraints. Restricted accesses should be clearly marked.

5.2.2 - Specific Recommendations for leisure Indoor Karting activities

Indoor circuit buildings should be equipped with a ventilation system and a continuously operating alarm system for the carbon monoxide (CO) content in the air. Lighting of Indoor tracks should be sufficiently powerful, even and glare free that it does not constitute an additional factor of risk for the Drivers.

5.2.3 - Emergency equipment

The equipment to handle emergency situations such as: - fire hazard, - accidents, - injuries, - intoxication by carbon monoxide, - pollution, should comply with the valid legislation concerned and be clearly defined. These equipments should be located in easily accessible areas, and their location should be clearly visible. The telephone numbers (or other means of communication) of means of rescue such as rescue services, hospital, fire brigade, police, etc., should be clearly indicated close to the means of communication of the site.

6. LEISURE KARTS

Only karts specifically designed for leisure (leisure karts) can be used in leisure Karting applications. Using karts that do not fulfil the following minimum safety Recommendations for leisure karts should be prohibited.

6.1 - Minimum Safety Recommendations

The design of leisure karts should take into account the fact that they can be used on a wide variety of tracks and subject to frequent impacts and severe abuse. For the design of karts, it should also be taken into account that they will be driven by a wide variety of Drivers, many of them inexperienced and young. The minimum safety Recommendations involve: - protection of leisure karts against impacts, - protection of Drivers against hot and rotating parts, - kart features which can be adapted to Drivers (ergonomics in connection with the steering wheel, the pedals and the seat), - safety components (brakes, steering, pedals, seat, tyres, fuel tank, bumpers, etc.), - maintenance and safety stickers on the kart, - Maintenance and User's Manual.

6.2 - Protections of leisure karts against impacts

Leisure karts should be equipped with a protection against impacts that runs all around the kart, including the front and rear wheels. Protections should be designed in such a way that: - wheel-to-wheel contacts are prevented, - the steering system is efficiently protected, - the kart remains stable in crashes so that the risk of a kart climbing above another one or somersaulting is kept to a minimum. The whole protection should have a system of energy absorption that remains efficient over time. Its design should take into account the speed of the kart.

6.3 - Protection against hot and rotating elements

Hot elements of the kart should be protected by adequate means aimed at preventing inadvertent contacts of the Driver's body or parts of his body with hot elements. Rotating elements should be protected to prevent long hair, scarves or loose clothes from getting caught in them. In any cases, these hazards should be avoided as defined in section 7.1. The upper side of the rear wheels should be protected.

6.4 - Features to adapt the kart to the Driver's size

Leisure karts should have means to be easily adaptable to different sizes of Drivers. Pedals and seats should be adapted to the size of each Driver.

6.5 - Safety components

Components such as brakes, pedals, steering system and tyres are of particular importance for leisure kart safety. They should be designed to be reliable. The minimum safety requirements for these components should be as follows:

6.5.1 - Braking system

The braking system should be designed to be reliable and to provide sufficient braking power. Its design should take into account the speed of the leisure kart and the broad variety of Drivers' size, weight and strength, as well as crash situations. The braking force should apply at least to both rear wheels simultaneously. The brake pedal should be strongly linked to the frame or to an adjustable length system supporting the pedals. The braking system should be fitted with a safety device allowing the system to work after a possible failure of the link of the pedal to the structure. The type of the brake fluid used should be clearly indicated by a maintenance sticker on the leisure kart and in the User's Manual.

6.5.1.2 - Pedals

The design (strength) of the pedals should take into account the forces induced by possible crashes. The shape of the pedals should be designed to prevent injuries. The shape of the pedals should be designed to prevent the foot from slipping away. The pedals should be positioned in such a way that they cannot be touched in a crash against another leisure kart or against a correctly designed and installed track protection. Features or extensions to adapt the size of the pedal to the size of the foot of the Driver should be integrated in the pedals.

6.5.3 - Steering system

The steering system should be designed taking into account the possible consequences of a crash. The steering wheel should have the shape of a closed circle. The material used for the steering wheel should be such that in the event of a crash it can bend without breaking. The steering wheel hub should have a metallic plate to prevent the steering column from punching through the steering wheel in the event of a crash. All parts of the steering system should be connected in a secured manner by such means as self-locking nuts or screws, or circlips.

6.5.4 - Wheels and tyres

The wheels should be connected to the rear axle hubs or mounted on the stub axles by means of a safety locking method such as split pins, self-locking nuts or circlips. The tyres should have a wear-bar.

6.5.5 - Fuel system

The fuel tank should be designed taking into account the severe conditions of use of a leisure kart. The fuel tank should be placed in such a way that it cannot be impacted in crash situations. The fuel tank should not be placed along the impact protections of the leisure kart. It should be placed between the Driver's legs. Mounting the fuel tank on top of the engine should be forbidden. The fuel tank should have an overflow bottle. Batteries (Electro Leisure Karts) and gas tanks (Gas Leisure Karts) should be mounted in such a way that their position and fixation ensure safety even in the event of an accident.

6.6 - Maintenance and safety stickers

Karts should have maintenance and safety stickers: warning the service provider to maintain the kart in proper conditions (refer to the maintenance manual), instructing the pilot about safety (briefing), forbidding driving to any pilot: without adequate protections, with long hair out of the helmet, with a scarf or floating clothes, · on the influence of drugs or alcohol. Additional stickers recalling the dangers of long hair out of the helmet, floating (loose) clothes, scarfs are strongly recommended.

6.7 - Technical documentation – Maintenance stickers

Leisure karts should be provided with technical documentation including: - Maintenance and User's Manual - spare parts catalogue with exploded views. The technical documentation should comprise all the maintenance stickers related to the use of leisure karts. The Maintenance and User's Manual should include as a minimum: - instructions on how to drive the karts, - instructions for the maintenance of the karts, - warning that the karts must be maintained in their original state, - warnings about safety issues, - Recommendations regarding Drivers: · clothes – protections, · age restrictions, · health and behaviour.

7. DRIVERS

7.1 - Service Provider's Briefing to rent kart Drivers

In order to ensure safe driving in leisure Karting, specific requirements and constraints involve the Drivers. The service Provider should brief them about safety. Before they are allowed to sit in the karts, the service Provider should have a Briefing with them in order to instruct them about the use of the karts and the rules on the track (for a typical content of Drivers' Briefing, see Appendix 1), and to tell them that they must obey the service Provider's instructions. The service Provider should prevent Drivers from driving: - without adequate protections, - with long hair out of the helmet, - with a scarf or loose clothes, - under the influence of drugs or alcohol. It is the responsibility of the service Provider to ensure that Drivers are informed and that these Recommendations are fully followed and about them.

7.2 - Age and size restrictions

While age and size restrictions should be in accordance with the Recommendations of this document, they must also in all cases comply with the currently applicable law of the country where the circuit is located.

7.3 Equipment – clothes

Drivers should wear adequate protections (see Appendix 1). Driving is forbidden to Drivers whose clothing can be a source of danger.

7.4 - Health and behaviour

Driving should be forbidden to Drivers with health problems, especially with a history of: - heart condition, - head, neck, or back ailment, - nervous disorder, - epileptic seizure, - and other health problems which can influence driving ability. Driving should also be forbidden to Drivers who have a abnormal behaviour or are under drugs or alcohol.

7.5 - Communication

All safety instructions to Drivers should be displayed by means of panels or boards, or on videos. Displays should be placed in areas visible for the Drivers.

7.6 - Sanctions

Drivers should be informed about the sanctions incurred if they do not follow the Offi cials' instructions.

8. MANAGEMENT

In order to maintain and improve the level of safety, the service Provider should comply with a minimum number of requirements or procedures such as: - organisation of the service Provider, - training of the personnel, - maintenance of the safety equipment, - maintenance of karts and track, - supervision of operations, - records, - service Provider's insurance, - etc.

8.1 - Organisation of the service Provider

An organisation document should be established by the service Provider, clearly defining: - the functions of the staff members and their responsibilities, - the number of staff required to run the various activities, - the level of qualification and training required for the different staff members.

8.2 - Emergency situations

A specific document for the management of emergency situations (fi re, accident, pollution, etc.) should be established by the service Provider, defining: - the role and responsibilities of the staff members in case of emergency, - the equipment to be used and where to fi nd it, - the type of training required to teach the staff how to handle emergency situations.

8.3 - Staff – qualification – training

The staff should be qualified for the function and responsibilities they have to fulfil. They should be aware of the importance of safety, informed about the various safety issues, and trained on a

regular basis. There should be a specific training in order to ensure that the staff can properly handle emergency situations.

8.4 - Maintenance of safety equipments (in addition to karts and tracks)

All safety equipments should be kept in good working condition, according to the legislation of the country concerned. The efficiency (ventilation) and accuracy (measuring) of the ventilation system and the carbon monoxide measuring system for Indoor leisure Karting should be checked on a regular basis. Emergency equipment such as fi re extinguishers and firstaid kits should be valid.

8.5 - Maintenance of leisure karts

Leisure karts should be maintained in good condition, according to the instructions of the maintenance manual. They should follow a periodic maintenance plan, e.g. daily, weekly, monthly. Safety related elements of the karts should be checked with particular care: - brakes, - steering, - tyres, - protections, - protections against heat and rotating elements, - nuts and bolts, - presence of safety warnings, - fuel (or battery, gas) system. A kart which has suffered a severe crash should undergo a full check including frame control and geometry control prior to being used again on the track. Refuelling should be done with the engine stopped and no Driver in the kart.

8.6 - Maintenance of the track

The track should be kept in good condition. The position and state of the protections should regularly be inspected, and repaired whenever necessary. The surface of the track should be kept clean, oil traces should be removed, holes or uneven spots should be repaired at short notice.

8.7 - Daily pre-opening safety check

Prior to the first leisure Karting activity of the day, a preopening check should be carried out. This pre-opening check involves safety related items such as: - leisure karts, - buildings and surroundings, - Driver's equipment, - emergency equipment. The points to be checked and the corresponding conditions should be listed in an "operations pre-opening checklist". Points needing action or likely to need action during the day should be mentioned in written form as comments.

8.8 - Supervision of a session

The service Provider or the staff member(s) concerned should carry out the following tasks:

* before the karts enter the track: - ensure that air quality (Indoor) is correct, - ensure that the number of karts entering the track is within the maximum permitted limit, - ensure that karts entering the track are all of the same type, - ensure that karts have been checked for safety, -

ensure that Drivers wishing to take part in a session are eligible to drive (age, size, clothing, health, drugs/alcohol, and/or abnormal behaviour), - ensure that Drivers wear at least the mandatory protections (see Appendix 1), - brief Drivers before starting the karts (see Appendix 1).

* during the driving session: - ensure that the safety rules are followed, - immediately warn, penalise or exclude Drivers with a dangerous, aggressive or abnormal behaviour, - immediately stop any Driver with long hair sticking out of his/her helmet or with loose clothes, - ensure that refuelling is carried out with the engine stopped and the Driver out of the leisure kart.

* at the end of the driving session: - ensure that Drivers do not go to the track or to restricted areas.

8.9 - Records

Written records of the following should be kept: - maintenance log book of the karts and of the daily checks, - maintenance log book of the track, - log book of operations pre-opening checklist, - accident reports or reports on critical situations - log book of emergency equipment maintenance and controls, - log book of staff training and qualification, - log book of training and qualification of those in charge of emergency situations.

8.10 - Insurance

The service Provider should have appropriate liability insurance covering any damage resulting from any accident, fire, deflagration or explosion having taken place during the time the service was being provided or any other similar activity was taking place. This insurance should offer adequate indemnity for personal injury and damage or loss to the property of any natural or legal person, caused or contributed to by a failure of the service Provider or by a Driver, to third parties, to other Drivers or to spectators. All limits and minimum legal requirements enforceable in the country where the service is provided shall absolutely and entirely be respected, as a compulsory minimum level of coverage.

APPENDIX 1 Recommendations for Drivers Age and Size Restrictions

The Driver's age and size should comply with the applicable law of the country and with the requirements of this document. - Young Drivers should only be allowed to drive karts with limited power and speed, and within activities specific to them. Young Drivers should only use karts fitted with adjustable systems that provide them with a secure and ergonomic driving position.

Prohibited Driving

Driving should be prohibited for a Driver: - wearing a scarf or shoes with long laces (as they may wind around rotating elements of the kart) - with long hair sticking out of the helmet, - wearing loose clothes, - wearing sandals or heeled shoes, - with health problems, especially with a history of: · heart condition, · head, neck or back ailment, · nervous disorder, · epileptic seizure, · etc. - with a abnormal behaviour, - under drugs or alcohol.

Clothes – Protections

Drivers should wear the following protections: - means of securing their long hair under the helmet (mandatory for Drivers with long hair), - disposable mobcap (for hygiene reasons), - head sock for Drivers with hair likely to come out of the helmet (highly recommended), - full faced with visor helmet of correct size for the Driver's head, approved according to the national regulations, with a strap to secure under the chin, - long clothes which are not loose and offer good protection of the arms and legs, - closed shoes – Short lace tied (if laced), - suit with elasticised cuffs and ankles, - driving gloves, - collars may be worn for comfort on Drivers' request, - rib protection of correct size, - suit for wet conditions with waterproof fastening.

Briefing – Communication

All safety instructions should be clearly displayed (panels, boards and videos). Before starting the karts, Drivers should be briefed about: - the fact that they should not: touch the engine or warm parts, step on the throttle cable, step on fuel and brake hose connexions, step on the side pods when getting in or out of the karts. - the way to use the throttle and brake pedals, and the position of the hands on the steering wheel ("10h10"), - driving without simultaneously using the throttle and brake pedals, - the way to lock the seat, the steering column and the pedals (if adjustable), - the rules for overtaking, - Avoiding Kart to Kart contact, - the danger of cold tyres in the first laps (lack of adherence), - the meaning of the flags and the obligation to follow the instructions of the track staff, - the applicable sanctions if rules are not followed, especially in case of dangerous driving.

** END **